

***USAREUR Supplement 1 to AR 750-1**

Maintenance of Supplies and Equipment

Army Materiel Maintenance Policy and Retail Maintenance Operations

7 September 2001

***This supplement supersedes USAREUR Supplement 1 to AR 750-1,
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Summary. This supplement prescribes USAREUR policy for tactical materiel maintenance.

Summary of Change. This revision--

- Deletes reference to obsolete policy, programs, and procedures.
- Clarifies Maintenance Assistance Instruction Team Program responsibility and reporting procedures (app G).
- Clarifies responsibilities for operational readiness float (ORF) policy and adds instructions on the use of ORF aircraft by aviation intermediate maintenance units (app W).
- Prescribes USAREUR policy for ORF readiness reporting under AR 700-138 (app W).
- Prescribes USAREUR policy for providing maintenance support to using units in USAREUR that are not authorized an organic unit-level maintenance section. These units are called "orphan units." The program policy is in appendix N.
- Prescribes USAREUR tire maintenance and training policy (app Z).
- Designates the availability of tire maintenance and classification inspection training through the United States Army Tank Automotive Command – Europe (app Z).
- Prescribes USAREUR contract maintenance support policy (app S).
- Revised truck and trailer brake machine test worksheets (app AA).

NOTES:

1. The provisions of DA Pamphlet 738-750 (para 1-6e through h) apply where maintenance forms are mentioned in this supplement.
2. The maintenance policy and procedures in this supplement apply only to units at home station in the central region (Germany, Belgium, the Netherlands, Luxembourg, and Italy). For contingency operations, the proponent of this supplement will incorporate the relevant policy and procedures into the logistics section of the appropriate USAREUR operation order.
3. This supplement covers both manual and automated maintenance forms and records. Manual forms (listed in DA Pam 738-750, chap 3) are also automated in the Standard Army Maintenance System (SAMS). Some manual maintenance forms and records also have automated equivalents in the Unit-Level Logistics System (ULLS). These forms are shown in DA Pamphlet 738-750, chapter 12. Automated systems that support The Army Maintenance Management System (TAMMS) take precedence over manual systems.

Applicability. This supplement applies to--

- USAREUR and tenant commands (UR 10-5, app A).
- Using units and support-maintenance activities maintaining tactical equipment at home station in the central region.
- Materiel management centers.

Supplementation. Commanders will not supplement this supplement without CG, USAREUR/7A (AEAGD-MD-P), approval.

Forms. USAREUR and higher-level forms (printed and electronic) are available through the USAREUR Publications System (UPUBS).

Suggested Improvements. The proponent of this supplement is the Office of the Deputy Chief of Staff, Logistics, HQ USAREUR/7A (AEAGD-MD-P, 370-6855). Users may suggest improvements to this supplement by sending a DA Form 2028 (Recommended Changes to Publications and Blank Forms) to the Commander, USAREUR/7A, ATTN: AEAGD-MD-P, Unit 29351, APO AE 09014.

Distribution. A (UPUBS). This supplement is available only in electronic format.

AR 750-1, 1 August 1994, is supplemented as follows:

Contents. Add the following chapter and paragraphs:

Chapter 6

Maintenance of Tactical Vehicle Canvas Items, USAREUR Brake Testing Policy, and Abrams Recovery and Evacuation

- 6-1. Maintenance of Tactical Vehicle Canvas Items
- 6-2. Brake Testing of Tactical Vehicles in USAREUR
- 6-3. M-1/M1A1 Abrams Tank Recovery and Evacuation Policy

Contents. Add the following to the appendix list:

- N. Maintenance Policy for Orphan Units
- O. Specialized Repair Activity
- P. Aircraft Controlled Exchange Policy
- Q. Modification Work Order Program
- R. Maintenance Assistance and Instruction Team Program
- S. USAREUR Contract Maintenance Support Policy
- T. Army Oil Analysis Program
- U. Material and Testing Laboratory Services

V. Sample Data Collection Program
W. Operational Readiness Float
X. USAREUR Chemical Agent Resistant Coating (CARC) Painting Policy
Y. Ground Support Equipment Tire Maintenance Training
Z. Maintenance of Tactical Vehicle Canvas Items
AA. USAREUR Brake-Testing Policy for Tactical Vehicles
AB. M1/M1A1 Abrams Tank Recovery and Evacuation Policy

Contents. Add the following to the table list:

Table N-1. USAREUR Orphan Units
Table N-2. Non-USAREUR Orphan Units
Table N-3. USASETAF (Abn) Responsibility Orphan Units
Table N-4. 80th ASG Responsibility Orphan Units
Table X-1. Respirators and Excessories
Table X-2. Respirator Kits
Table X-3. CARC NSNs in the Army Master Data File
Table X-4. Required Respirators for Surface Preparation
Table AA-1. Instructions for Posting the Date of the Last Successful Brake Test on DA Form 5988-E
Table AA-2. Instructions for Scheduling the Date of the Next Brake Test on DA Form 5987-E

Contents. Add the following to the figure list:

Figure 4-1. Sample Transmittal Schedule
Figure Q-1. Format for an Estimated Cost Breakdown of Expenditures
Figure W-1. ORF Codes and Demand Qualifications
Figure Y-1. Sample Statement of Using Unit Tire Training
Figure Y-2. Sample Statement of DS/GS Maintenance Tire Training
Figure AA-1. Sample DA Form 5988-E
Figure AA-2. Sample DA Form 5987-E
Figure AA-3. Sample DA Form 2404 for Trucks
Figure AA-4. Sample DA Form 2404 for Trailers
Figure AA-5. Format for Confirming Brake-Test Machine Operator Training

Paragraph 2-17, Major Army Commanders. Add subparagraph v as follows:

v. This supplement emphasizes the importance of maintenance to the USAREUR mission. Properly maintained equipment is essential to the overall combat readiness of this command. The Internal Management Control Program Command Inspection Program, Command Logistics Review Team, Command Supply Discipline Program, and directed or requested staff visits also provide emphasis on maintenance in USAREUR. These programs help identify and solve problems in compliance and ensure maintenance is properly supervised and performed at the lowest level.

Paragraph 2-17e, Major Army Commanders. Add the following:

Refer to UR 350-1 for a complete list of maintenance courses.

Paragraph 2-17m, Major Army Commanders. Add the following:

See US 1 to AR 750-43.

Paragraph 2-17t, Major Army Commanders. Add the following:

The MACOM POC for specialized repair activity (SRA), MAIT, and SDC policy is the Maintenance Division, Office of the Deputy Chief of Staff, Logistics (ODCSLOG), HQ USAREUR/7A (AEAGD-MD-P).

Paragraph 2-28, Commanders at all Levels. Add subparagraph s as follows:

s. Ensure military maintenance facilities are not used to repair privately owned equipment.

Paragraph 3-9, Unit Level Maintenance. Add subparagraphs m and n as follows:

m. The dispatching unit is responsible for the recovery of tactical vehicles. When a disabled tactical vehicle is outside the local area, and the unit cannot be reached, the military police (MP) may be notified. The MP will notify the owning unit of the disabled vehicle. Dispatchers should give tactical vehicle operators the unit telephone number in the event of an accident or breakdown.

n. Appendix N provides USAREUR policy on orphan units.

Paragraph 3-10i, DS Maintenance. Add subparagraph (1.1) as follows:

(1.1) When the supporting maintenance activity rejects equipment or returns it to the unit because the equipment was cannibalized or damaged by other than fair wear and tear or because unit-level maintenance was not performed, the technical inspector and shop officer will--

(a) Close out ULLS DA Form 5990-E (Maintenance Request) or DA Form 2407 (Maintenance Request), whichever is appropriate, using the correct work request status codes from DA Pamphlet 738-750, appendix B, table B-21. List all man-hours applied against this maintenance request in SAMS-1 when closing out tasks.

(b) If the maintenance request is a DA Form 2407, state the reason for rejection in block 25.

(c) Sign the appropriate equipment inspection and maintenance worksheet (ULLS-G DA Form 5998-E or DA Form 2404) and provide the owning unit commander a copy of the forms, listing equipment deficiencies and shortcomings.

Paragraph 3-10, DS Maintenance. Add subparagraphs l and m as follows:

l. Direct support (DS) maintenance activities will provide emergency maintenance support (including roadside recovery) for tactical vehicles not belonging to units in their support area. When multiple maintenance activities exist in an area, the maintenance activity with a mission most closely matching the support needed will provide the service.

m. Emergency maintenance services will be limited to the repairs necessary to facilitate the equipment's safe return to home station or operational site, whichever is closer.

Paragraph 3-11g(6). GS Maintenance. Add the following:

The designated cannibalization point for ground equipment is the 21st Theater Support Command (TSC), General Support Center, Europe (GSC-E), Rhein Ordnance Barracks, building S-646, Kaiserslautern, Germany (DSN 489-8715). The designated cannibalization point for aviation equipment is 502d Aviation Maintenance, Coleman Barracks, building 21, Sandhofen, Germany.

Paragraph 3-11g(8). GS Maintenance. Add the following:

Requests for approval will be sent to the proponent of this supplement through command channels.

Paragraph 3-13, Specialized Repair Activity (SRA). Add subparagraph h as follows:

h. Appendix O provides USAREUR policy on SRAs.

Paragraph 4-4, Verification Inspections. Add subparagraph d as follows:

d. The goal is to perform classification technical inspections within 15 workdays after the date the equipment is job-ordered to the supporting direct support maintenance unit.

Paragraph 4-5, Maintenance Expenditure Limit (MEL). Add subparagraphs n through r as follows:

n. The ODCSLOG (AEAGD-MD-P) will determine and publish the USAREUR standard military-labor rate each year and revise the rate as required.

(1) The standard military-labor rate--

(a) Is based on the average Army annual-composite-pay rate of personnel with the rank of private first class through sergeant and a 50-percent utilization rate (1,040 hours each year).

(b) Includes direct and indirect labor and an estimated 10 percent of the average composite rate for overhead.

(2) The USAREUR standard military-labor rate will be used for determining the economic reparability of equipment and the estimated cost of damage (ECOD).

(3) Commanders of USAREUR and tenant commands (UR 10-5, app A) will determine Department of the Army civilian (DAC) and local national (LN) standard-labor rates for their maintenance facilities.

o. The standard military labor rate is based on the average pay and allowances of personnel with the rank of private first class through sergeant, a 50 percent utilization rate (1,040 hours annually), and includes direct, indirect, and 10 percent overhead costs. For this reason, the USAREUR standard military-labor rate will be used for computing MELs and determining economic reparability of equipment.

p. Although SAMS is not a financial accounting system, a maintenance request detail report (AHO-018) may be produced for each customer of the estimate cost of damage (ECOD). The SAMS may also be used to produce a list of repairs completed on each item of equipment. Producing the AHO-018 may require three things: an updated UIC support master file loaded with the correct direct rates for military and civilian, a standard cost for indirect labor, or a percentage used to compute costs allocated to each maintenance request. SAMS reports are not to be used for billing purposes.

q. The Commander, 200th Theater Support Command Materiel Management Center (TSC MMC), is the MEL waiver authority. Requests to waive published MELs for items (excluding medical materiel) will be sent to the appropriate item manager at the 200th TSC MMC. The Commander, 200th TSC MMC, will send requests for blanket waivers to the appropriate United States Army Materiel Command (USAMC) item manager or equivalent DOD manager.

r. The total estimated cost to repair excess and accident-damaged equipment will include the cost of replaced major assemblies (for example, engines and transmissions) minus the dollar credit for the unserviceable major assemblies, when authorized.

Paragraph 4-5b(4), Maintenance Expenditure Limit (MEL). Add the following:

The MEL for commercial equipment purchased by USAREUR units is 90 percent of replacement cost.

Paragraph 4-6, Equipment Transfer and Turn-In. Add subparagraphs h through j as follows:

h. The theater POC for Technical Manual (TM) -10/-20 series maintenance standards, inquiries, and waivers is the Commander, 200th TSC MMC (AERLA-MMC-DMR) (DSN 484-8132).

i. All equipment transfers from USAREUR units to other major Army commands (MACOMs) will be coordinated with a memorandum of agreement (MOA) between USAREUR and the gaining MACOM. The 200th TSC MMC will develop and coordinate the MOA.

j. The standard for equipment transfers within USAREUR is defined in the basic AR, paragraph 3-1.

Paragraph 4-7, Controlled Exchange. Add subparagraph h as follows:

h. Appendix P provides USAREUR aircraft controlled exchange policy.

Paragraph 4-9, Modification Work Orders (MWOs). Add subparagraph g as follows:

g. Appendix Q provides USAREUR MWO policy and procedures.

Paragraph 4-13a, Utilization Standards. Add the following:

Man-hour accounting procedures for DS and general support (GS) maintenance units and activities are described in the SAMS-1 End User manual, AIS MANUAL 25-L21-AHO-ZZZ-EM, and in AIS MANUAL 25-L21-AHO-ZZZ-EM for SAMS-2.

Paragraph 4-15, Work Order Logistics File (WOLF). Add subparagraph c as follows:

c. The reporting process in USAREUR is as follows:

(1) Commanders of units operating under the SAMS are responsible for ensuring the monthly closed work-order request transfer process is completed in SAMS-1 and that the closed work-order data files (AHN4BD) are transmitted to their supporting SAMS-2. The supporting MMC SAMS-2 must transmit the files to LOGSA. The AHN4BD file contains all closed work-order, tasks, parts information, serial number tracking information (M-1, M1A1, and M1IP tanks only), and operational readiness float (ORF) data. The sample schedule below (fig 4-1) specifies the monthly from-and-to transmittal schedule. All transmittals must be completed according to b above.

Monthly (between 1st and 10th) Maintenance Request Data File (AHN4BD) Transmittal Schedule			
Reports From	STAMIS	Transmitted To	STAMIS or File
V Corps	SAMS-1	V Corps	SAMS-2
V Corps	SAMS-2	19th Corps MMC (DPI M230)	SAMS-2
19th Corps MMC (DPI M230)	SAMS-2	AMC LOGSA	WOLF
29th Support Group	SAMS-1	200th TSC MMC (DPI M130)	SAMS-2
80th Area Support Group	SAMS-1	200th TSC MMC (DPI M130)	SAMS-2
General Support Center, Europe	SAMS-1	200th TSC MMC (DPI M130)	SAMS-2
200th TSC MMC (DPI M130)	SAMS-2	LOGSA	WOLF
United States Army Southern European Task Force (Airborne) (USASETAF) (Abn)	SAMS-1	HQ, USASETAF (Abn) MMC (DPI M202)	SAMS-2
HQ, USASETAF (Abn) MMC (DPI M202)	SAMS-2	LOGSA	WOLF
100th Area Support Group	SAMS-1	100th Area Support Group (DPI M131)	SAMS-2
100th Area Support Group	SAMS-2	LOGSA	WOLF

Figure 4-1. Sample Transmittal Schedule

(2) Commanders of MMCs are responsible for ensuring that--

(a) Procedures are in place to follow-up on delinquent monthly closed workorder data files (AHN4BD) from SAMS-1 units. Follow-ups must be accomplished before performing the SAMS-2 output process of the Materiel Readiness Support Activity (MRSA) (closed work order) file to LOGSA.

NOTE: LOGSA was formerly known as the MRSA. The acronym, however, is still used as an on-screen prompt in SAMS.

(b) Procedures are in place to ensure MMC SAMS-2 successfully completes the monthly output process for transmitting the MRSA (closed work order) file (AH0D1F) to LOGSA. This process can be accomplished only on the MMC SAMS-2.

(c) Procedures are in place to ensure a complete transfer of MMC SAMS-2 MRSA (closed work order) data to LOGSA.

(3) The USAREUR standard for units transmitting closed work-order data to the LOGSA WOLF each month is 100 percent. Commanders of MMCs and SAMS sites are required to establish procedures to ensure that the reporting standard is met. Commanders should make WOLF-reporting performance part of their monthly review and analysis, or part of a similar review.

Paragraph 4-18, MAIT Program Responsibilities. Add subparagraph g as follows:

g. Appendix R explains USAREUR Maintenance Assistance and Instruction Team (MAIT) Program responsibilities and policy. Paragraph 4-19 explains the MAIT Program.

Paragraph 4-22, Private Enterprise. Add subparagraph d as follows:

d. Appendix S prescribes USAREUR contract maintenance support policy and procedures.

Paragraph 4-36, Army Oil Analysis Program (AOAP). Add subparagraphs h and i as follows:

h. The Army Oil Analysis Program (AOAP) allows early detection and prevention of component failures and increases equipment readiness. Appendix T explains USAREUR AOAP policy and procedures.

i. Appendix U explains USAREUR materiel and testing laboratory services.

Paragraph 4-38, Sample Data Collection (SDC). Add subparagraph h as follows:

h. Appendix V provides USAREUR sample data collection (SDC) policy.

Paragraph 4-39, Maintenance Float. Add subparagraph k as follows:

k. Appendix W prescribes USAREUR maintenance float policy.

Paragraph 4-41b, Policies for Painting. Add subparagraph (13) as follows:

(13) Appendix X provides USAREUR chemical agent resistant coating (CARC) painting policy (basic AR, para 4-41).

Paragraph 4-41d(7), Policies for Marking Materiel. Add subparagraphs (a) through (c) as follows:

(a) Unit Identification Markings (Bumper Markings). Markings will be applied using black vinyl decals or black camouflage paint on a Desert-Tan, No. 686, background (1-quart can, national stock number (NSN) 8010-01-276-3638; 1-gallon can, NSN 8010-01-276-3639; or 5-gallon can, NSN 8010-01-276-3640). The markings will be centered in a rectangular desert-tan block. The block will be large enough to hold unit identification markings. The desert-tan background will not extend more than 1-inch around the unit markings except for the marking surface on bumperettes, which may be painted entirely in desert-tan. Markings currently on vehicles will not be changed only to comply with this paragraph. Markings will be changed when the vehicle is in unit maintenance or when the markings have been damaged and remarking is considered necessary. Commanders have 6 months to ensure markings are redone after a unit designation change. Commanders should schedule repainting so that it will not disrupt the unit's mission. The desert-tan background will not be used behind any other vehicle markings (for example, tire pressure, diesel fuel only).

(b) National Symbol. The national symbol (NSN 7690-01-042-0671) is a five-pointed star in contrasting lusterless black 383 (37030) that fits inside a 3-inch diameter circle. The star will be applied to every tactical and combat vehicle. The star will be placed on the front and rear of vehicles and equipment as stated in Technical Bulletin (TB) 43-0209, section VIII, item 17. It will not be applied to ambulances or other medical vehicles affected by international agreements on those vehicles.

(c) Weight Classification Sign. Standard colors for weight classification signs (NSN 9905-00-565-6267) on the front of camouflaged-painted vehicles will be lusterless black numerals on a lusterless forest-green background. When signs are black-on-yellow (or any other color), they will be repainted using the forest-green background at the next semiannual or annual service.

Paragraph 4-43, Administrative Storage of Materiel. Add subparagraph q as follows:

q. To facilitate USAREUR-level requirements (e above), administrative storage of equipment requires USAREUR approval. Equipment placed in administrative storage will be reported through command channels to the proponent of this supplement.

Paragraph 4-45, Maintenance of Pneumatic Tires. Add subparagraph f as follows:

f. Appendix Y provides USAREUR ground support equipment tire maintenance and training policy and procedures.

Paragraph 4-45a, General Policies. Add subparagraph (6) as follows:

(6) Using, DS, and GS units will classify tracks, track components, and solid rubber tires according to TM 9-2530-200-24, and pneumatic tires according to TM 9-2610-200-14.

Paragraph 4-45d, Training. Add subparagraphs (4) and (5) as follows:

(4) The Tire Training Course is designed to provide training in--

(a) Inspection and classification procedures for all types of automotive pneumatic tires.

(b) Proper mounting and demounting procedures for tires.

(c) Operation and maintenance of power tire mounter-demounters.

(5) A videotape showing how to operate the Bishman model (931A Tire Mounter-Demounter (NSN 4910-00-675-1478), line item number (M71601)), is available for loan from the local training aids support center.

Paragraph 5-3f, Selection of Equipment for Overhaul. Add the following:

The 200th TSC MMC is the USAREUR Executive Agent for selection of equipment for overhaul, including the Combat Vehicle Evaluation (CEV) Program.

Paragraph 5-11, Maintenance Policies. Add subparagraph e as follows:

e. USAREUR unit-level maintenance of communications security (COMSEC) equipment and controlled cryptographic items (CCI) is the responsibility of the unit authorized or issued the equipment.

(1) COMSEC maintenance includes--

(a) DS maintenance of COMSEC equipment provided by the COMSEC materiel DS activity for divisional units and by COMSEC maintenance detachments for nondivisional units.

(b) Backup DS, GS, and SRA maintenance of COMSEC equipment provided by 5th Signal Command (5th Sig Cmd) through the Theater COMSEC Logistics Support Center (TCLSC). The TCLSC is located at Coleman Barracks, building 51, Mannheim, Germany (DSN 382-5815).

(2) CCI maintenance includes--

(a) DS maintenance of CCI provided by the electronics maintenance shop in the main support battalion of the division support command (DISCOM) for division units, and companies in the 3d Corps Support Command (COSCOM) and 21st TSC for nondivisional units. Units without organic DS maintenance capability and without DISCOM or COSCOM support will use the nearest 21st TSC DS maintenance facility with a CCI-repair capability.

(b) Backup DS, GS, and SRA maintenance of CCI provided by the TCLSC to theater DS maintenance activities.

(3) Corps and division signal battalions will provide DS maintenance for organic COMSEC equipment and CCI.

(4) The following noncorps units have organic DS COMSEC and CCI maintenance capabilities:

- (a) 21st TSC.
- (b) USASETAF (Abn).
- (c) 5th Sig Cmd.
- (d) 3d COSCOM.
- (e) Maintenance Activity Pirmasens (MAP).

(5) The TCLSC will provide theater backup DS maintenance and GS and SRA maintenance of COMSEC equipment and CCI for theater DS maintenance activities. The 5th Sig Cmd will reimburse USASETAF (Abn) for all repair parts, equipment, and temporary duty costs associated with repairing 5th Sig Cmd equipment in Italy. The 5th Sig Cmd, with USASETAF (Abn) concurrence, will stop reimbursement if it is to provide backup COMSEC and CCI support to 5th Sig Cmd units in Italy.

Add chapter 6 as follows:

CHAPTER 6

MAINTENANCE OF TACTICAL VEHICLE CANVAS ITEMS, USAREUR BRAKE TESTING POLICY, AND ABRAMS RECOVERY AND EVACUATION

6-1. MAINTENANCE OF TACTICAL VEHICLE CANVAS ITEMS

Appendix Z provides USAREUR policy on maintaining tactical vehicle canvas items.

6-2. BRAKE TESTING OF TACTICAL VEHICLES IN USAREUR

Appendix AA provides USAREUR tactical vehicle brake-testing policy.

6-3. M1/M1A1 ABRAMS TANK RECOVERY AND EVACUATION POLICY

Appendix AB provides USAREUR M1/M1A1 Abrams tank recovery and evacuation policy.

Appendix A, Section I, Required Publications. Add the following:

American National Standards Institute/Compressed Gas Association Specification G-7.1-1989, Commodity Specification for Air

Military Specification MIL-HDBK-245D, Department of Defense Handbook For Preparation of Statement of Work (SOW)

Military Specification MIL-C-53072(ME), CARC System Application and Procedures Quality Control Inspection

United States Army Environmental Hygiene Agency Technical Guide 144, Guidelines for Controlling Health Hazards in Painting Operations

Common Table of Allowances 50-909, Field and Garrison Furnishings and Equipment

TM 38-301-series, Joint Oil Analysis Program Laboratory Manual

TB 43-180, Calibration and Repair Requirements for the Maintenance of Army Materiel

Appendix A, Section II, Related Publications. Add the following:

AR 11-2, Internal Control Systems

AR 37-108, General Accounting and Reporting for Finance and Accounting Offices

AR 220-1, Unit Status Reporting

AR 700-138, Army Logistics Readiness and Sustainability

UR 1-7, Interdepartmental, Interagency, and Intraservice Agreements

Appendix A, Section IV, Referenced Forms. Add the following:

DD Form 314 (Preventive Maintenance Schedule and Record) **NOTE:** This is a manual form for use by units not supported by the ULLS

DD Form 1131 (Cash Collection Voucher)

DD Form 1384 (Transportation Control and Movement Document)

DD Form 2026 (Oil Analysis Request)

DA Form 348 (Equipment Operator's Qualification Record or ULLS-G Equivalent)

DA Form 461-5 (Vehicle Classification Inspection)

DD Form 1222 (Request For and Results of Tests)

DA Form 1296 (Stock Record Account)

DA Form 2408-5 (Equipment Modification Record)

DA Form 2765-1 (Request for Issue or Turn-In)

DA Form 3161 (Request for Issue or Turn-In)

DA Form 3266-1 (Army Missile Materiel Readiness Report)

DA Form 3590 (Request for Disposition or Waiver)

DA Form 4697 (Department of the Army Report of Survey)

DA Form 4949 (Administrative Adjustment Report)

DA Form 5991-E (Oil Analysis Request (Automated))

OF 346 (U.S. Government Motor Vehicle Operator's Identification Card) or ULLS-G equivalent

Glossary. Add the following:

200th TSC MMC	200th Theater Support Command Materiel Management Center
21st TSC	21st Theater Support Command
A&I	assistance and instruction
AAC	acquisition advice code
ACOR	alternate contracting officer's representative
ACSA	acquisition and cross-servicing agreement
ACSLOG	assistant chief of staff, logistics
AIS	automated information system
AMCOM	United States Army Aviation and Missile Command
AR	Army regulation
ASG	area support group
ASIOE	associated support items of equipment
AVUM	aviation unit maintenance
BFV	Bradley fighting vehicle
BII	basic issue items
CBS-X	Continuing Balance System-Expanded

CFT	contract field team
COEI	components of end item
COR	contracting officer's representative
COSCOM	corps support command
COTR	contracting officer's technical representative
CTA	common table of allowances
<i>DIN</i>	<i>Deutsche Industrienorm</i>
DODAAC	Department of Defense activity address code
DPW	director of public works
DS	direct support
DSN	Defense Switched Network
DSU	direct support unit
EMF	Equipment Master File
FSN	fiscal station number
GS	general support
GSC-E	General Support Center, Europe
HET	heavy equipment transporter
HQ USAREUR/7A	Headquarters, United States Army, Europe, and Seventh Army
ID/IQ	indefinite delivery/indefinite quantity
IMCSRS	Installation Materiel Condition Status Reporting System
ISSA	interservice support agreement
JARB	Joint Acquisition Review Board
LAR	logistics assistance representative
LO	lubrication order
LON	letter of notification
MC	mission capable
MCP	maintenance collection point
MEL	maintenance expenditure limit
MERA	maintenance engineer repair authorization
MIPR	Military Interdepartmental Purchase Request (DD Form 448)
MLC	Mannheim Laboratory Center
MMC	materiel management center
MMIS	Modification Management Information System
MND-N	Multinational Division - North
MOA	memorandum of agreement
MOC	maintenance operational check
MOI	memorandum of instruction
MON	memorandum of notification
MOU	memorandum of understanding
MRC	maintenance repair code
MRSA	Materiel Readiness Support Activity
MSHA/NIOSH	Mine Safety and Health Administration/National Institute for Occupational Safety and Health
MWO	modification work order
MWOFP	modification work order fielding plan
NAMSA	NATO Maintenance and Supply Agency
NCO	noncommissioned officer
NMC	not mission capable
NMCM	not mission capable maintenance
NMCS	not mission capable supply
ODCSLOG	Office of the Deputy Chief of Staff, Logistics, HQ USAREUR/7A
OF	optional form
OPLAN	operation plan
OPORD	operation order
PCB	polychlorobiphenyl
PCN	product control number
PCP	pentachlorophenol
PEL	permissible exposure limit
PEO	program executive officer

PM	program manager
PMC	partial mission capable
POC	point of contact
PR&C	purchase request and commitment
R&A	review and analysis
RCO	regional contracting office
SCR	senior command representative
SMART	Supply, Maintenance, and Assessment Review Team
SOW	statement of work
SRA	special repair activity, stock record account
STAMIS	Standard Army Management Information System
TACOM	United States Army Tank-Automotive and Armaments Command
TAMMS	The Army Maintenance Management System
TB	technical bulletin
TCLSC	Theater COMSEC Logistics Support Center
TDY	temporary duty
TFF	Task Force Falcon
TLMCMO	Theater Logistics Maintenance Contract Management Office
<i>TÜV</i>	<i>Technischer Überwachungsverein</i>
ULLS	Unit Level Logistics System
ULLS-G	Unit Level Logistics System - Ground
ULM	user level maintenance
U.S.	United States
USACCE	United States Army Contracting Command, Europe
USAEHA	United States Army Environmental Hygiene Agency
USAMC	United States Army Materiel Command
USAMC Forward - Europe	United States Army Materiel Command Forward - Europe
USASETAF (Abn)	United States Army Southern European Task Force (Airborne)
WOLF	work order logistics file
WRCO	Wiesbaden Regional Contracting Office

Add appendixes N through AB as follows:

APPENDIX N MAINTENANCE POLICY FOR ORPHAN UNITS

N-1. PURPOSE

This appendix establishes unit level maintenance support policy for orphan units. An orphan unit is a USAREUR or non-USAREUR (modification table of organization (MTOE) or table of distribution and allowances (TDA)) unit assigned to a USAREUR command (UR 10-5, app A) that is not authorized a unit level maintenance section. Orphan unit maintenance program participation is encouraged. An alternate maintenance source (for example, the 7th Army Reserve Command (7th ARCOM) Equipment Storage Site - Expanded (ESS-X) contract, may be used at the commander's discretion on a nonreimbursable basis (at unit cost).

N-2. APPLICABILITY

This policy applies to--

- a. Tactical units in USAREUR.
- b. Nontactical units in USAREUR with tactical equipment.
- c. Non-USAREUR units that are not authorized organic unit-level maintenance support.

N-3. POLICY

- a. Supporting units will make initial contact as soon as possible with the unit for which they are responsible.
- b. Supporting and orphan units will establish an interservice support agreement (ISSA). Issues that cannot be resolved between the two units will be referred to the ODCSLOG (AEAGD-MD-P) for decision.
- c. Supporting units are not required to provide support to the orphan unit until an ISSA is in place.
- d. Orphan units will comply with the supporting unit's maintenance standing operating procedure.

NOTE: The information in tables N-1, N-2, N-3, and N-4 is correct as of 1 November 1999. The ODCSLOG, Maintenance Division (AEAGD-MD), provided the information for these tables.

Table N-1 USAREUR Orphan Units		
SUPPORTED (ORPHAN) UNIT	LOCATION	COMMAND
V CORPS RESPONSIBILITY		
38th Postal Company (Platoon)	Ansbach	1st PERSCOM
Detachment D, 106th Finance Battalion	Ansbach	266th FINCOM
Detachment C, 38th Personnel Services Battalion	Ansbach	1st PERSCOM
Detachment B, 90th Personnel Services Battalion	Bad Kreuznach	1st PERSCOM
Detachment B, 8th Finance Battalion	Bad Kreuznach	266th FINCOM
Headquarters and Headquarters Detachment (HHD, 410th Base Support Battalion	Bad Kreuznach	104th ASG
305th Support Center	Bad Kreuznach	7th ARCOM
301st Support Center	Bamberg	7th ARCOM
316th Support Center	Bamberg	7th ARCOM
345th Support Center	Bamberg	7th ARCOM
Headquarters and Headquarters Company (HHC), Detachment A, 90th Personnel Services Battalion	Baumholder	1st PERSCOM
HHD, 222d Base Support Battalion	Baumholder	104th ASG
Detachment A, 8th Finance Battalion	Baumholder	266th FINCOM
HHD, 8th Finance Battalion	Baumholder	266th FINCOM
Detachment A, 39th Finance Battalion	Darmstadt	266th FINCOM

Detachment C, 55th Personnel Services Battalion	Friedberg	1st PERSCOM
HHD, 38th Personnel Services Battalion	Giebelstadt	1st PERSCOM
55th Postal Company	Hanau	1st PERSCOM
HHD and Detachment A, 55th Personnel Services Battalion	Hanau	1st PERSCOM
HHD, 39th Finance Battalion	Hanau	266th FINCOM
309th Support Center	Hanau	7th ARCOM
Detachment C, 39th Finance Battalion	Kirchgöns	266th FINCOM
Detachment A, 38th Personnel Services Battalion	Kitzingen	1st PERSCOM
Adjutant General Replacement Company	Rhein Main	7th ARCOM
454th Replacement Regulating Detachment	Rhein Main	7th ARCOM
64th Replacement Detachment	Rhein Main	1st PERSCOM
Detachment C, 106th Finance Battalion	Schweinfurt	266th FINCOM
38th Postal Company (Platoon)	Schweinfurt	1st PERSCOM
Detachment B, 38th Personnel Services Battalion	Schweinfurt	1st PERSCOM
Detachment B, 39th Finance Battalion	Wiesbaden	266th FINCOM
Detachment B, 55th Personnel Services Battalion	Wiesbaden	1st PERSCOM
317th Rear Area Operations Center	Wiesbaden	7th ARCOM
HHD, 106th Finance Battalion	Würzburg	266th FINCOM
38th Postal Company (Platoon)	Würzburg	1st PERSCOM
38th Postal Company Headquarters	Würzburg	1st PERSCOM
21ST TSC RESPONSIBILITY		
64th Medical Detachment	Böblingen	30th Med Bde
HHC 7th ARCOM	Heidelberg	7th ARCOM
221st Public Affairs Detachment	Heidelberg	7th ARCOM
33d Army Band	Heidelberg	USAREUR
Detachment B, 510th Personnel Services Battalion	Heidelberg	1st PERSCOM
HHC, 1st Personnel Command	Heidelberg	1st PERSCOM
HHC, 266th Finance Command	Heidelberg	266th FINCOM
HQ, USAREUR/7A	Heidelberg	USAREUR
1172d Transportation Detachment (Movement Control)	Kaiserslautern	7th ARCOM
1177th Transportation Detachment (Movement Control)	Kaiserslautern	7th ARCOM
Air Terminal Movements Control Team	Kaiserslautern	7th ARCOM
616th Transportation Detachment (Movement Control)	Kaiserslautern	7th ARCOM
617th Transportation Detachment (Movement Control)	Kaiserslautern	7th ARCOM
Detachment C, 8th Finance Battalion	Kaiserslautern	266th FINCOM
90th Postal Company	Kaiserslautern	1st PERSCOM
90th Personnel Services Battalion	Kaiserslautern	1st PERSCOM
Detachment C, 90th Personnel Services Battalion	Kaiserslautern	1st PERSCOM
310th Theater Army Area Command	Kaiserslautern	7th ARCOM
313th Support Center	Kaiserslautern	7th ARCOM
330th Rear Tactical Operations Center	Kaiserslautern	7th ARCOM
280th Support Center	Mannheim	7th ARCOM
510th Postal Company	Mannheim	1st PERSCOM
HHC, Detachment A, 510th Personnel Services Battalion	Mannheim	1st PERSCOM
HHD, 208th Finance Battalion	Mannheim	266th FINCOM
615th Freight Consolidation and Distribution Detachment	Mannheim	7th ARCOM
673rd Transportation Detachment	Mannheim	7th ARCOM
Detachment C, 208th Finance Battalion	Stuttgart	266th FINCOM
Detachment C, 510th Personnel Services Battalion	Stuttgart	1st PERSCOM
7TH ARMY TRAINING COMMAND RESPONSIBILITY		
Detachment D, 38th Personnel Services Battalion	Grafenwöhr	1st PERSCOM
Detachment B, 106th Finance Battalion	Vilseck	266th FINCOM

Table N-2 Non-USAREUR Orphan Units		
SUPPORTED (ORPHAN) UNIT	LOCATION	COMMAND
V CORPS RESPONSIBILITY		
52d Signal Battalion	Kitzingen	5th Sig Cmd
21ST TSC RESPONSIBILITY		
181st Signal Company	Heidelberg	5th Sig Cmd
43d Signal Battalion	Heidelberg	5th Sig Cmd
HHD, 5th Military Police Battalion (Criminal Investigation Command)	Kaiserslautern	2d RGN USACIDC
HHC, 5th Signal Command	Mannheim	5th Sig Cmd
52d Signal Battalion	Stuttgart	5th Sig Cmd
587th Signal Company	Stuttgart	5th Sig Cmd

Table N-3 USASETAF (Abn) Responsibility Orphan Units		
SUPPORTED (ORPHAN) UNIT	LOCATION	COMMAND
USAREUR Units		
510th Postal Company (Platoon)	Vicenza	1st PERSCOM
663d and 793d Movement Control Teams	Vicenza	7th ARCOM
Detachment D, 208th Finance Battalion	Vicenza	266th FINCOM
Detachment D, 510th Personnel Services Battalion	Vicenza	1st PERSCOM
314th Rear Tactical Operations Center	Vicenza	7th ARCOM
14th Transportation Battalion	Vicenza	21st TSC
Non-USAREUR Units		
HHD, 509th Signal Battalion	Vicenza	5th Sig Cmd

Table N-4 80th ASG Responsibility Orphan Units		
SUPPORTED (ORPHAN) UNIT	LOCATION	COMMAND
USAREUR Units		
90th Postal Company	Chievres, Be	1st PERSCOM
BENELUX Finance Office, 266th Finance Command	Chievres, Be	266th FINCOM
Non-USAREUR Units		
128th Signal Company	Chievres, Be	5th Sig Cmd
HHC, 39th Signal Battalion	Chievres, Be	5th Sig Cmd
U.S. Army Element - SHAPE	Chievres, Be	
U.S. Army Element - AFCENT	Chievres, Be	
Military Traffic Management Command, Europe	Rotterdam, NI	MTMC-EUR
19th Combat Equipment Company	Vriezenveen, NI	CEG-E
16th Combat Equipment Company	Zutendaal, Be	CEG-E

N-4. RESPONSIBILITIES

a. The Office of the Deputy Chief of Staff, Logistics (ODCSLOG), HQ USAREUR/7A (AEAGD-MD-R), will--

- (1) Maintain a master list of USAREUR and non-USAREUR orphan units in Europe.
- (2) Ensure a USAREUR command is assigned responsibility for providing unit-level maintenance support to each orphan unit.
- (3) Serve as an arbitrator between units that cannot come to an agreement.

b. The Commanding Generals (CGs), V Corps, 21st Theater Support Command (21st TSC), and Seventh Army Training Command, will--

(1) Establish a system that provides unit-level maintenance support to all units assigned to their commands that are not authorized a unit-level maintenance section.

(2) Assign a unit to provide unit-level maintenance support to USAREUR and non-USAREUR orphans as listed in tables N-1 and N-2.

(3) Provide a list of the supporting units and the orphans they support to the ODCSLOG (AEAGD-MD-R) and update as required.

(4) Ensure an alternate unit is identified and assigned to provide support. If an alternate cannot be identified, immediately notify the ODCSLOG (370-8532) to ensure continuous support of the orphan.

(5) Provide unit-level maintenance and The Army Maintenance Management System (TAMMS) support, including but not limited to dispatching, services scheduling, and licensing.

c. The CG, United States Army Southern European Task Force (Airborne) (USASETAF) (Abn) will--

(1) Assign a unit or organization to provide unit-level maintenance support to USAREUR and non-USAREUR orphans as listed in table N-3.

(2) Provide a list of supporting units to the ODCSLOG (AEAGD-MD-R) and update as required.

(3) Ensure an alternate unit is identified and assigned to provide support. If an alternate cannot be identified, immediately notify the ODCSLOG (370-9114) to ensure continuous support of the orphan.

(4) Provide unit-level maintenance and TAMMS support, including but not limited to dispatching, service scheduling, and licensing.

d. The Commander, 80th Area Support Group (ASG) will--

(1) Provide unit-level maintenance support to USAREUR and non-USAREUR orphans as listed in table N-4.

(2) Provide all unit-level maintenance and TAMMS support, including but not limited to dispatching, service scheduling, and licensing.

(3) Obtain reimbursement for parts and labor on all maintenance and repair of tactical vehicles and equipment from orphan units.

e. Commanders of USAREUR commands with orphan units assigned as listed in tables N-1, N-3, and N-4, will ensure their orphan units--

(1) Perform operator-level maintenance as required by the appropriate operator's (-10) technical manual.

(2) Provide an operator to help the supporting unit conducting unit-level maintenance.

NOTE: 7th ARCOM orphan units will provide an operator to help the supporting unit only if the maintenance is in conjunction with a drill period.

(3) Assign operational control (OPCON) of all unit maintenance personnel to the supporting unit to help conduct unit-level maintenance and TAMMS.

(4) Reimburse the supporting unit for all supplies used in the repair and maintenance of orphan equipment. Reimbursement will be accomplished using an ISSA between the orphan unit and supporting unit.

NOTE: Units listed in table N-4 will reimburse total parts and labor costs to the 80th ASG.

(5) Provide the supporting unit with current copies of all equipment authorization documents (for example, MTOEs, TDAs).

(6) Notify the ODCSLOG (AEAGD-MD-R) of any additions, changes, or deletions of orphan units assigned, including changes in status from orphan to nonorphan unit.

f. Commanders of non-USAREUR commands with orphan units listed in tables N-2, N-3, and N-4, will ensure their orphan units--

(1) Perform operator-level maintenance as required by the appropriate operator's (-10) technical manual.

(2) Provide an operator to help the supporting unit conducting unit-level maintenance.

(3) OPCON unit maintenance personnel assigned to the supporting unit to help conduct unit-level maintenance.

(4) Reimburse the supporting unit for all supplies used in the repair and maintenance of orphan equipment. Reimbursement will be accomplished through the use of a DD Form 448 (Military Interdepartmental Purchase Request (MIPR)) provided by the orphan to the supporting unit. Exceptions are--

(a) 5th Signal Command units are not required to provide reimbursement under a mutual peacetime support memorandum of agreement between CG, USAREUR/7A and the CG, 5th Signal Command. Support for 5th Signal Command equipment is on a non-reimbursable basis.

(b) Units listed in table N-4, other than 5th Signal Command units will reimburse total parts and labor costs to the 80th ASG.

(5) Notify the ODCSLOG (AEAGD-MD-R) and the supporting unit of projected and actual additions, changes, and deletions of orphan units assigned, including changes in status from orphan to non-orphan unit.

APPENDIX O

SPECIALIZED REPAIR ACTIVITY

O-1. PURPOSE

This appendix provides policy and procedures for--

- a. Managing the Specialized Repair Activity (SRA) authority in USAREUR.
- b. Requesting SRA authority to perform depot and limited-depot repair of unserviceable class 9 air and ground equipment component parts, including testing of repaired items, with a Maintenance Repair Code (MRC) of "D" or "L".
- c. Submitting quarterly and annual SRA production reports.

O-2. POLICY

a. The United States Army Materiel Command Forward - Europe (ATTN: AMCLG) is authorized to approve USAREUR SRA authorization requests based on the recommendations of its major subordinate commands (MSCs) (for example, the United States Army Armament and Chemical Acquisition and Logistics Activity, United States Army Aviation and Missile Command (AMCOM), United States Army Communications and Electronics Command, United States Army Tank-Automotive and Armaments Command). Only the Office of the Deputy Chief of Staff, Logistics, HQDA (DALO-SMM) is authorized to disapprove SRA authorization requests in USAREUR.

b. The following types of maintenance activities may request SRA authority to perform depot and limited depot repair of unserviceable class 9 component parts, including the testing of repaired items, with an MRC of "D" or "L":

(1) Tactical direct support (DS) or general support (GS) maintenance activities with an Electronic Repair Shelter (ERS) and the required Test Program Set (TPS) to repair circuit card assemblies (currently only 71st Ordnance Company).

(2) Theater-level DS maintenance activities supporting the National Maintenance Program (currently only 5th Maintenance Company).

(3) Modification table of organization and equipment (MTOE) GS maintenance units, including aviation intermediate maintenance units.

(4) Tables of distribution and allowances (TDA) GS maintenance activities responsible for supporting tactical equipment and component parts.

(5) Contract-maintenance activities supporting tactical equipment and component parts.

c. The cost of additional tools and test equipment and the estimated repair cost of each item will be included in the SRA authorization request. The total one-time start-up acquisition cost of repairing or testing MRC "D" and "L" items will be prorated in the number of items to be repaired during the period for which SRA authority is requested.

d. Commanders who contract for foreign or domestic commercial depot maintenance of equipment and components will ensure contracts include SRA approval authority. This includes implementing arrangements with the NATO Maintenance and Supply Agency (NAMSA).

e. When a repair task, previously coded GS level or below (MRC "O," "F," or "H") is re-coded to depot level (MRC "D" or "L"), the repair facility may continue to perform the repair task until all unserviceable components on-hand at the time of the code change are repaired or the required repair parts (on-hand or due-in at the time of the code change) are depleted, whichever occurs first.

O-3. RESPONSIBILITIES

a. The Office of the Deputy Chief of Staff, Logistics (ODCSLOG), HQ USAREUR/7A (AEAGD-MD-P, 370-8600), will manage the SRA Program in USAREUR. The ODCSLOG (AEAGD-MD-P) maintains a historical file of national stock numbers (NSNs) and maintenance tasks for which USAREUR DS, GS, and contract-maintenance activities have been granted SRA authority.

b. The Support Operations Division, 21st Theater Support Command, and the Materiel Readiness Division, G4, Headquarters, V Corps, will--

(1) Evaluate SRA authorization requests and send the requests that are recommended for approval to the Commander, USAREUR/7A, ATTN: AEAGD-MD-P, Unit 29351, APO AE 09014.

(2) Validate the continued requirement for SRA authority for each approved NSN or maintenance task and report the results (including recommendations for deletion) to the ODCSLOG (AEAGD-MD-P), by 15 October each year.

(3) Send quarterly and annual SRA/Maintenance Engineer Repair Authorization (MERA) production reports for Operations and Maintenance, Army, funded repairs to the Commander, USAREUR/7A, ATTN: AEAGD-MD-P, Unit 29351, APO AE 09014, to arrive by 15 January (for 1st quarter fiscal year (FY)), 15 April (for 2d quarter FY), 15 July (for 3d quarter FY), and 15 October (for 4th quarter FY and annual FY) each year.

(4) Send quarterly and annual SRA/MERA production reports for Army Working Capital Fund repairs to the National Logistics Coordination Office - Europe, ATTN: AMCLG-NLCO-EUR, Unit 23203, APO AE 09263, to arrive by 15 January (for 1st quarter FY), 15 April (for 2d quarter FY), 15 July (for 3d quarter FY), and 15 October (for 4th quarter FY and annual FY) each year.

O-4. PROCEDURES

a. The requesting maintenance activity will prepare requests for SRA authority according to the basic AR, paragraph 3-13b and figure 3-1.

NOTE: Units with an electronic repair shelter (ERS) and the required test program set (TPS) to repair circuit card assemblies (CCAs) currently have HQDA SRA authorization to repair MRC “L” circuit cards. These CCA repairs will be included in the SRA production reports described in paragraph O-3b(3). The M1 Abrams tank engines, forward and rear engine modules, and auxiliary and reduction gearboxes repaired in the Direct Support – Plus (DS+) Maintenance Program do not require SRA authority.

b. A separate request will be required for each NSN. The AMCOM-managed items require a separate SRA authorization request for each MRC “D” or “L” repair task. Supplementary information in the SRA authorization request will include the--

(1) Nomenclature; NSN; part number; source, maintenance, and recoverability code (SMRC); acquisition advice code (AAC); and estimated quantity of repair parts required to accomplish the depot-level repairs for the duration of the SRA authorization.

(2) Specific activity designation and DOD activity address code (DODAAC) that will be ordering AAC “M” depot-level replacement parts through the Army wholesale supply system.

NOTE: AAC “M” prohibits the routine issue of specific depot maintenance repair parts to unauthorized requesters.

c. The current Federal Logistics Record (FED LOG) will be used to verify the MRC, cost, and unserviceable credit data of the item for which SRA authority is requested. In case of conflict between the MRC listed in the FED LOG and the SMRC in the applicable repair parts technical manual, the current FED LOG will take precedence. The FED LOG will be used to determine the AAC of all required repair parts.

d. The requesting maintenance activity will send SRA authorization requests through command channels to the Commander, USAREUR/7A, ATTN: AEAGD-MD-P, Unit 29351, APO AE 09014. The Chief, Maintenance Division, ODCSLOG, will--

(1) Disapprove SRA authorization requests when the total cost of repair, including one-time startup costs, exceeds the FED LOG replacement cost minus the unserviceable credit, except for items that affect readiness and have long lead-times.

(2) Send SRA authorization requests recommended for approval directly to the applicable Army Materiel Command (AMC) MSC, according to the basic AR, paragraph 3-13b, and figure 3-1, item 3.

(3) Provide feedback on approved or disapproved SRA authorization requests to the requesting maintenance activity.

e. USAREUR and tenant commands (UR 10-5, app A) with approved SRAs and MERAs will submit quarterly and annual production reports to the offices identified in paragraphs O-3b(3) and (4).

(1) For each approved SRA and MERA, the maintenance activity will report the following:

(a) Date of the repair.

(b) SRA or MERA number.

(c) National item identification number (NIIN), part number, and serial number, if applicable, of the item repaired.

(d) Parts data: NIIN or part number, quantity, unit cost, and extended cost of the parts used in the repair process.

(e) Labor data: Manhours and labor cost. (Identify whether the labor was DOD or contract labor.)

(f) Total repair cost: Cost of parts plus cost of labor ((d) plus (e) above).

(g) POC and telephone number at the submitting maintenance activity.

(2) The offices identified in paragraphs O-3b(3) and (4) above will send--

(a) A consolidated annual report to the Commander, HQ AMC, ATTN: AMCLG-LMM, 5001 Eisenhower Avenue, Alexandria, VA 22333-0001.

(b) A copy of the consolidated report to each USAREUR and tenant command that provided input.

APPENDIX P

AIRCRAFT CONTROLLED EXCHANGE POLICY

P-1. PURPOSE

This appendix supports the controlled-exchange policy for aircraft in the basic regulation, paragraph 4-7, and in TM 1-1500-328-23.

P-2. GENERAL

a. Controlled exchange is the removal of serviceable components from economically reparable end items for immediate reuse in restoring a like item or aircraft to a mission capable (MC) condition. All removable parts (including line-replaceable units, avionics (radios, instruments), aircraft survivability equipment) are considered components.

b. Controlled exchange should be conducted only as a last resort to support operational mission requirements. Preflight of standby aircraft for missions and use of available MC float aircraft will reduce the controlled-exchange requirement. The exchange of components from aircraft entering extensive maintenance to expedite completion of maintenance on other aircraft provides the greatest readiness gain from controlled exchange.

P-3. POLICY

a. Controlled exchange of aviation-system components is authorized only when--

(1) A valid requisition has been submitted to replace an unserviceable item.

(2) Required components are not available from the supply system before the required delivery date.

(3) The aircraft from which the component is removed is classified as not mission capable supply, not mission capable maintenance, or partial mission capable (PMC). (Controlled exchange from PMC aircraft will be limited to components of the subsystems that were PMC before the exchange requirement. In no case will additional subsystems be degraded to PMC.)

(4) The maintenance effort required to restore all the unserviceable reparable materiel involved to a MC condition is within the maintenance allocation chart (MAC) authorization for the aircraft and capability of the unit performing the controlled exchange (or when the unit has a letter of authorization from the supporting aviation intermediate maintenance (AVIM) unit).

(5) It is the only way to eliminate an adverse effect on the operational readiness of the unit, organization, or activity performing the exchange.

b. Components will not be removed from aircraft awaiting final inspection, maintenance operational check (MOC), or test flight. Additional components will not be removed from aircraft that have passed a successful final inspection or MOC.

c. Controlled exchange by aviation unit maintenance (AVUM) is authorized only when--

(1) It is the only way to provide required aircraft to support an operational requirement. Maintenance completion will not be expedited through controlled exchange solely to improve reported readiness rates.

(2) Approved by an aviation lieutenant colonel (0-5) in the chain of command. V Corps may delegate approval authority to majors for medium-lift companies, air-ambulance companies, and units geographically separated from their parent units in specific areas where an aviation lieutenant colonel is not normally available.

d. Controlled exchange by AVIM units is authorized only when it is the only way to provide an MC aircraft to a supported unit within the time limit indicated by the issue-priority designator on the maintenance request.

P-4. MANAGEMENT PROCEDURES

a. **Local Procedures.** Local commanders will establish procedures to ensure--

(1) Requisitions for replacement components are sent immediately.

(2) Aircraft or subsystems will not be degraded to an uneconomically repairable condition.

(3) Aircraft from which a component was removed is protected from further degradation.

(4) Organizations performing controlled exchange take prompt action to restore unserviceable materiel to an MC condition.

b. Exchange Time Limits. AVUM and AVIM commanders will establish time limits when aircraft may act as donors to controlled exchange. Time limits should not exceed the average order/ship time for the unit's normal supply support.

c. Inspection Requirements. Before installation on receiving aircraft, all components exchanged will be inspected and serviced (if applicable) according to the next scheduled--

(1) Phase elements of the donor aircraft that apply to the component being moved.

(2) Calendar inspection that applies to the component listed on the donor aircraft's DA Form 2408-18 (Equipment Inspection List).

d. Documentation.

(1) A record of removed parts will be maintained and aircraft records annotated for each item removed or reinstalled. A locally produced control record will be used to control exchange activity. Control forms will include at least the information in figure P-1.

(2) A copy of the exchange-control record will be attached to both the donor and receiving aircraft maintenance records. Control records will be filed and disposed of in accordance with the procedures that apply to the maintenance record to which it is attached.

e. Troubleshooting.

(1) Components exchanged between MC and NMC aircraft to support troubleshooting (periods of less than 1 workday) are exempt from the control procedures in this appendix. Removal of components for troubleshooting will be immediately documented on donor and receiving aircraft maintenance records. The serial numbers of the components involved will be noted on entries for both donor and receiving aircraft. Components will be immediately reinstalled on donor aircraft after troubleshooting is completed. A qualified technical inspector will inspect every component reinstallation. When a decision is made to leave a troubleshooting component installed for more than 1 workday, the policy in this appendix will apply and the exchange will be documented on a control record.

(2) Installing a serviceable component in an unserviceable aircraft can lead to the failure of the new component by the same wire or system fault that caused the first failure. When using controlled exchange for troubleshooting, the suspected unserviceable parts should be tested in a serviceable aircraft.

f. DA Form 1352 (Army Aircraft Inventory Status and Flying Time Reporting).

(1) Commander's statements will be entered on DA Form 1352 to document controlled exchange during the report period. Reports will show serial numbers of donor aircraft, serial numbers of receiving aircraft, nomenclatures, NSN of exchanged parts, and document numbers for replacement parts, and man-hours to complete the action. The inspection, MOC, and test-flight requirements will be included in the man-hours.

(2) The policy in this appendix will remain in effect during transition to war, preparation for deployment, and stability operations. Requests for waivers should be sent to the Commander, USAREUR/7A, ATTN: AEAGD-MD-AV, Unit 29351, APO AE 09014.

CONTROLLED EXCHANGE RECORD

1. Gaining aircraft serial number:
 2. Donor aircraft serial number:
 3. Mission requirement:
 4. Signature of approving authority:
 5. Document number of requisition:
 6. Document number of turn-in:
 7. Signature of technical supply personnel (certifying that lateral supply search has been conducted, local procurement is not possible, and replacement part is on requisition):
 8. Signature of maintenance supervisor (certifying that local manufacture is not possible and that inspection requirements of component exchange have been completed):
 9. Component serial numbers:
 - a. Serviceable:
 - b. Unserviceable:
 10. Total flight hours:
 11. Receiving aircraft:
 12. Donor aircraft:
 13. Signature of quality-control inspector (certifying that all aircraft forms and records have been annotated according to DA Pamphlet 738-751):
 14. Other locally required information:
-

***Figure P-1. Format for Aircraft Controlled-Exchange Record**

***This format will be used only as a guide and will not be printed, reproduced, or stocked.**

APPENDIX Q

MODIFICATION WORK ORDER PROGRAM

Q-1. REFERENCES

- a. AR 750-10, Army Modification Program.
- b. DA Pamphlet 738-750, Functional Users Manual for the Army Maintenance Management System (TAMMS).
- c. DA Pamphlet 738-751, Functional Users Manual for the Army Maintenance Management System-Aviation (TAMMS-A).
- d. Memorandum of Understanding Between the Commanding General, United States Army, Europe, and Seventh Army, and the Commanding General, United States Army Materiel Command, Annex C, DCSHNA file number O-113, 30 September 1991.

Q-2. PURPOSE

This appendix provides policy and procedures for controlling, operating, and managing the application of DA emergency, urgent, and routine modification work orders (MWOs) on aeronautical and nonaeronautical tactical equipment (except for medical equipment) in USAREUR.

Q-3. POLICY

a. Aeronautical Equipment. DA Pamphlet 738-751 prescribes policy and procedures for applying MWOs to aeronautical equipment.

b. Nonaeronautical Equipment.

(1) The MWO sponsoring agency is responsible for applying all emergency, urgent, and routine MWOs on equipment in USAREUR active Army units and reserve stocks using depot-maintenance personnel or contract field teams (CFTs), regardless of the amount of time it takes to apply the MWO. If the modification work order fielding plan (MWOFP) does not offer to apply the MWO by contractor team, the USAREUR MWO Program Coordinator will write it into the fielding plan.

(2) Only MWOs with an approved MWOFP may be applied by the sponsoring agency.

(3) No commander at any level will enter into a separate agreement to apply the MWO. Direct coordination by the program executive officer (PEO) or program manager (PM) with the user is not authorized.

(4) No commander at any level will receive MWO kits directly from the CONUS supply source. The sponsoring agency must ship all MWO kits for USAREUR equipment to a central storage facility designated by the United States Army Materiel Command, Forward – Europe (USAMC Forward – Europe).

(5) No commander at any level is authorized or required to order MWO kits unless the approved MWOFP specifies otherwise. This is because the sponsoring agency materiel developer is responsible for applying MWOs to USAREUR equipment at no cost to the unit according to the approved MWOFP. The sponsoring agency will reject unit requests for MWO kits (DA Pam 710-2-1, para 2-14).

(6) Commanders at every level will provide logistics support to the MWO application team according to the approved MWOFP. Logistics support includes office, shop, and storage space; use of telephones and fax and copy machines; forklift and wrecker-truck support; and welding and cutting equipment to the extent that this support is available in the unit. Logistics support also includes providing enough unit personnel to move MWO-designated equipment to and from the MWO shop to meet the MWO application schedule.

(7) When required by the MWOFP, the owning unit will prepare DA Form 2407 and send it to the CFT applying the MWO. After the CFT has applied the MWO and the equipment is returned to the owning unit's control, the CFT will dispose of the completed DA Form 2407 as follows:

- (a) Receipt Copy (#1).** The owning unit will return copy 1 to the CFT.

(b) National Maintenance Point (NMP) Copy (#2). The CFT will use copy 2 to report application of the MWO to the sponsoring agency specified in the MWOF. The CFT will send copy 2 to the sponsoring agency within 3 days after applying the MWO.

(c) Control Copy (#3). Copy 3 will be destroyed or disposed of according to instructions in the MWOF.

(d) Organizational Copy (#4). Copy 4 will be given to the unit that owns the modified equipment. The owning unit will keep copy 4 until the DA Form 2408-5 (Equipment Modification Record) is posted with the MWO application when required by DA Pamphlet 738-750, appendix E, table E-2. After the DA Form 2408-5 has been posted, the owning unit may destroy copy 4. When DA Form 2408-5 is not maintained for an item of equipment, copy 4 may be destroyed locally.

(e) File Copy (#5). Copy 5 will be destroyed or disposed of according to instructions in the MWOF.

(8) The unit MWO coordinator will stay in daily contact with the MWO application team leader to ensure all applicable equipment scheduled for modification is modified. The unit MWO coordinator will use the property book list to ensure all applicable equipment is modified before the MWO team is released.

(9) The Commander, 200th TSC MMC, will send requests for exceptions to the policy in (1) through (3) above, with justification, to the proponent office with a recommendation to approve or disapprove the request.

(10) The unit MWO coordinator will ensure the MWO team is not denied access to the shop during training holidays, physical training, or other activity without first coordinating with the MWO team leader. Lockouts waste time and money.

(11) When more than one MWOF is being coordinated for the same item of equipment in a calendar year, the 200th TSC MMC will negotiate with each sponsoring agency to combine an agency's MWO into blocks. Use of the block-modification concept will reduce disruption of tactical units.

(12) When an item of equipment or component missed modification during the MWO application period, the 200th TSC MMC will report the omission to the sponsoring agency and ask the agency to arrange to apply the MWO.

(13) When application of the MWO changes the NSN, serial number, or registration number of an item requiring DA Form 2408-9 (Equipment Control Record), the CFT applying the MWO will prepare DA Form 2408-9 according to TM 738-750, paragraph 5-6c(9). The CFT applying the MWO will distribute DA Form 2408-9 as directed in the MWOF or as follows:

(a) NMP Copy (#1). Copy 1 will be sent to the Executive Director, United States Army Materiel Command Logistics Support Activity, ATTN: AMXLS-RRM, Redstone Arsenal, AL 35898-7466, within 30 days after the report date.

(b) Control Copy (#2). Copy 2 will be given to the property book officer (PBO) when clearing the unit. After the PBO uses copy 2 to adjust property accountability records, it will be used or disposed of according to local command directives.

(c) Log Book Copy (#3). Copy 3 will be given to the unit that owns the modified equipment before clearing the unit. This form will be kept in the logbook binder with the corresponding permanent logbook copy of the acceptance, gain, or transfer report.

c. COMSEC and CCI Equipment.

(1) The 5th Signal Command (AFSE) will apply all using-unit, direct support, and GS maintenance emergency, urgent, and routine MWOs on COMSEC equipment and CCI in USAREUR, regardless of the time required to apply the MWO and level of maintenance. This authority cannot be delegated to non-5th Signal Command using- and support maintenance activities.

(2) When the 5th Signal Command does not have the capability or capacity to apply COMSEC and CCI MWOs and the MWOF does not offer to apply the MWO by CFT, the 5th Signal Command MWO program coordinator will write it into the plan and process the MWOF within the times specified in this appendix for nonaeronautical equipment and components (b above).

(3) When the 5th Signal Command agrees to apply the MWO, it will indicate in the MWOFP where the sponsoring agency will ship the MWO kits.

(4) When the 5th Signal Command cannot apply or manage application of an MWO, it will return the MWOFP with justification to the USAREUR Program Coordinator within 30 calendar days after receipt.

Q-4. RESPONSIBILITIES

a. The Maintenance Division, Office of the Deputy Chief of Staff, Logistics (ODCSLOG), HQ USAREUR/7A (AEAGA-MD-P), DSN 370-8282, has general staff supervision of the MWO Program in USAREUR.

b. The Commander, 200th Theater Support Command Materiel Management Center (200th TSC MMC) is the USAREUR MWO Program manager.

c. The sponsoring agency of an MWO is responsible for the application of mandatory MWOs. AR 750-10 defines “sponsoring agency” as the Surgeon General, the Corps of Engineers, the United States Army Communications Command, and the United States Army Materiel Command (USAMC).

d. The USAMC Forward - Europe, will--

(1) Ensure PEOs, program managers, sponsoring agencies, and continental United States (CONUS) contractors coordinating or applying MWOs have a theater clearance from USAMC Forward - Europe to visit the theater. Travel clearances must be coordinated with the USAREUR MWO program manager (Commander, 200th TSC MMC (AERLA-MMC-TAD)).

(2) Host, chair, and coordinate the USAREUR-USAMC Annual Modification Workshop with USAMC major subordinate commands (MSCs), USAREUR commands, and the USAREUR MWO Program Manager. USAMC Forward - Europe will publish minutes of the workshop.

(3) Help USAMC MSCs and the USAREUR MWO program manager solve MWO problems.

e. USAMC MSCs (sponsoring agencies) will--

(1) Coordinate modification work order fielding plans (MWOFPs) for USAREUR equipment and components with the USAREUR MWO Program Manager.

(2) Publish and distribute letters of notification (LONs), memorandums of notification (MONs), and MWOFPs before negotiating MWO applications.

(3) Give the USAREUR MWO program manager 75 calendar days after the date of receipt to complete negotiation of MWOFPs and 120 calendar days for revalidation.

(4) Ship MWO kits for aeronautical equipment to the Coleman Barracks storage area and kits for nonaeronautical equipment to the USAMC Forward - Europe at the Germersheim storage area.

(5) Prepare documents and brochures listing planned modifications by fiscal year for distribution during the USAREUR-USAMC Annual Modification Workshop. All MWOFPs that will be revalidated or negotiated during the workshop will be provided to the USAREUR MWO program manager 75 to 120 calendar days before the workshop.

(6) On request, provide information to the USAREUR MWO program manager for each MWO to help determine when a specific MWO has or has not been applied. This information will include a brief description, end item or component noun nomenclature, model number, national stock number (NSN), and serial-number range.

f. The Commander, 200th TSC MMC, will--

(1) Be the USAREUR MWO Program Manager.

(2) Appoint a USAREUR MWO coordinator in writing to handle MWO actions for USAREUR. The Commander, 200th TSC MMC, will provide the coordinator's name, telephone number, and office symbol to the USAMC Forward - Europe MWO coordinator and to MWO sponsoring agencies.

(3) Coordinate MWOFPs and return them to the proponent within 75 calendar days from receipt date.

(4) Operate and control the USAREUR MWO Program.

(5) Receive and process MWO validation listings with USAREUR commands and return them to the proponent within 120 calendar days from receipt date (AR 750-10).

(6) Establish MWO application priorities in coordination with the Office of the Deputy Chief of Staff, Operations, HQ USAREUR/7A, (AEAGC-FMD), and establish an MWO application schedule.

(7) Sign MWOFPs to indicate USAREUR acceptance of terms and conditions, or present alternative terms and conditions.

(8) Coordinate with USAREUR MWO program coordinators (g(2) below) to ensure MWO applications (DA Form 2407 (Maintenance Request) or the application team's monthly production reports are completed and sent promptly.

(9) Ensure the USAREUR MWO Program coordinator represents USAREUR at the USAREUR-USAMC annual modification workshop.

(10) Receive the MWO advance information LON and MON from the applicable commodity command and determine applicability, advance implementation planning, and MWO kit requirements. The Commander, 200th TSC MMC, will notify the MWO proponent within 14 calendar days when MWOFPs are received.

(11) Validate MWOFPs and determine USAREUR MWO application requirements for end items or components (based on automated asset files, when available) or require inventory and reporting action from using units to establish MWO application requirements.

(12) Ensure that equipment in USAREUR-owned stocks is included in the MWO requirements and that unmodified equipment is not introduced into USAREUR after application of the MWO has started.

(13) Include operational readiness float (ORF) in MWO requirements.

(14) Ensure that equipment undergoing repair in USAREUR general support (GS) maintenance activities is included in MWO requirements.

(15) Help commands implement the MWO Program and comply with the provisions of this appendix.

(16) Send LONs, MONs, and MWOFPs for communications security (COMSEC) and controlled cryptographic item (CCI) equipment to the 5th Signal Command for action.

(17) Send requests for exception to the policy in paragraph Q-4 to the Commander, USAREUR/7A, ATTN: AEAGD-MD-P, Unit 29351, APO AE 09014. The request must include a justification and a recommendation to approve or disapprove the request.

(18) GS maintenance activities may apply MWOs when it is within their organic capability and capacity and when approved by the ODCSLOG (AEAGD-MD-P). Requests for exception to USAREUR MWO policy in paragraph Q-4 will be sent to the Commander, USAREUR/7A, ATTN: AEAGD-MD-P, Unit 29351, APO AE 09014. When requesting an exception, the GS maintenance activity will include the information in figure Q-1, which will be used in the decision-making process.

ESTIMATED COST BREAKDOWN OF EXPENDITURES	
1. Expenditures required:	
	Cost
a. Man-hours direct labor cost:	
b. Overhead direct expense:	
c. Consumable material cost:	
d. Transportation (equipment and personnel):	
e. Total estimate cost per item to be modified:	
f. Total items to be modified:	
g. Total estimated cost for modifying all items:	
NOTE: Do not include the cost of military labor.	
	FSN
2. Provide the fiscal station number (FSN) for reimbursement.	
NOTE: The FSN can be obtained from the local resource management or budget office.	

***Figure Q-1. Format for an Estimated Cost Breakdown of Expenditures**

***This format will be used only as a guide and will not be printed, reproduced, or stocked.**

g. Commanders at all levels will--

(1) Implement the MWO program in their subordinate units.

(2) Appoint an MWO program coordinator in writing to manage the MWO program in their commands.

Commanders will provide the coordinator's name, telephone number, and office symbol to the USAREUR MWO coordinator (Commander, 200th Theater Support Command Materiel Management Center, ATTN: AERLA-MMC-TAD, Unit 23203, APO AE 09263).

(3) Ensure each subordinate commander (division, brigade, battalion, and using unit) appoints an MWO coordinator in writing to manage unit MWO programs.

(4) Distribute MWO information to subordinate units. On request, commanders will help the USAREUR MWO Program Coordinator determine MWO requirements. When possible, the property book, not maintenance records, will be used to initially determine MWO requirements. This includes identifying and reporting all items by U.S. Army registration number or serial number (or both) requiring modification according to the applicable MWOFP.

(5) Help the USAREUR MWO Program Coordinator review and finalize the MWOFP. This assistance will include approving a primary and alternate MWO application date and planning and implementing possible stand down of units or equipment to ensure MWOs are applied expeditiously and effectively.

(6) Participate in preparing the MWO application schedule with the USAREUR MWO Coordinator, 200th TSC MMC equipment managers, and representatives from depot or contractor application teams.

(7) Ensure subordinate units comply with DA Form 2407 reporting requirements as specified in the MWOFP.

(8) Have subordinate MWO coordinators attend all MWO workshops, inprocess reviews, and application schedule-coordination and schedule-preparation meetings.

h. Commanders of using units will--

(1) Appoint a using-unit MWO coordinator.

(2) Ensure MWO application dates are included on the unit-training schedule.

(3) Comply with MWOFPs.

(4) Ensure the unit MWO coordinator helps the MWO team leader and maintains daily contact with the team leader until all equipment in the unit requiring modification has been modified.

(5) Ensure the MWO application team receives the logistics support agreed to in the MWOFP and has reasonable access to the shop area.

i. The Commanding General, 5th Signal Command (AFSE), will--

(1) Apply, record, and report the application of MWOs to COMSEC equipment and CCI unique to 5th Signal Command.

(2) When applicable, apply, record, and report the application of MWOs to COMSEC equipment and CCIs in USAREUR commands.

j. Non-USAREUR organizations will designate an MWO program coordinator for equipment receiving supply and maintenance support. Non-USAREUR organizations will comply with the modification control program requirements that apply to USAREUR commands.

Q-5. PROCEDURES

Application of MWOs will begin when--

a. The MWOFP has been coordinated (signed by the sponsoring agency and the 200th TSC MMC commander or a designated representative).

b. At least 50 percent of the application kits are on hand. The theater will not incur any second-destination transportation costs associated with MWO application. The unit with equipment requiring modification, however, may use organic transportation assets to transport MWO kits on request of the application team and approval of the unit commander.

Q-6. MODIFICATION RECORD

a. Commanders at every level will maintain and record MWO applications on DA Form 2408-5 for the equipment specified in DA Pamphlet 738-750, paragraph 5-5, and DA Form 2408-5, MWO column, table E. Units with automation-equipment support can use printouts or automated forms instead of the paper copy of DA Form 2408-5.

b. Report the application of MWO kits on COMSEC equipment according to DA Pamphlet 738-750, chapter 8.

Q-7. THE MODIFICATION MANAGEMENT INFORMATION SYSTEM (MMIS)

a. The Office of the Deputy Chief of Staff, Logistics (ODCSLOG), HQ USAREUR/7A, implemented the MMIS on 11 September 1999. USAREUR MWO coordinators at all levels are required to get a user identification (ID) and password and become familiar with the MMIS. The ODCSLOG, HQ USAREUR/7A, will notify field units when materiel developers finish posting applied MWO to the MMIS. This will assist MWO coordinators in MWO management.

b. The MMIS gives commanders, MWO coordinators, motor officers, maintenance warrant officers, motor sergeants, equipment inspectors, USAMC logistics assistance representatives (LARs), and staff personnel with access to the Internet the on-line ability to check the status of MWOs for aviation and ground equipment from any location.

c. Using-unit and support-maintenance personnel are able to sign-in on MMIS using a personal computer and determine the overall MWO status of one or more items of equipment in a unit by unit identification code (UIC) and equipment NSN, model number, and serial number.

d. The MMIS allows users to determine MWOs that--

(1) Apply to a particular piece of equipment, including DA funding status.

(2) Need to be applied.

(3) Have been applied.

e. Additionally, the MMIS provides automated templates to be used by USAMC materiel developers and equipment commands for drafting and staffing MWO documents. MWO specifications and MWOFPs are also included.

f. HQDA publishes MMIS policy and procedures in AR 750-10.

g. Equipment developers are in the process of posting completed MWOs to the CONUS MMIS database.

h. A MMIS user-identification (ID) and password are required. A user-ID and password can be obtained at <http://208.242.67.250/mwo> with a log-in request form icon. After the user has completed the log-in request form, Calibre Systems will provide a user-ID and password, usually within 48 hours.

APPENDIX R

MAINTENANCE ASSISTANCE AND INSTRUCTION TEAM PROGRAM

R-1. POLICY

a. HQ V Corps will provide MAIT service to the following units in Germany:

- (1) V Corps units (except for the 1st Armored Division and 1st Infantry Division).
- (2) Seventh Army Training Command.
- (3) United States Army Medical Activity, Heidelberg.
- (4) United States Army Medical Activity, Würzburg.

b. Commanders of the following commands will provide MAIT services to their assigned and attached units as prescribed in the basic AR and this supplement:

- (1) 21st Theater Support Command, including the Landstuhl Regional Medical Center, on request.
- (2) United States Army Southern European Task Force (Airborne) (USASETAF (Abn)), including non-USASETAF personnel and medical, postal, and finance units in Italy.
- (3) 1st Infantry Division.
- (4) 1st Armored Division.

c. The 1st Personnel Command (including postal activities) and 266th Finance Command (including units and detachments) in Germany will coordinate with the nearest MAIT (a and b above) for assistance and instruction (A&I).

d. The non-USAREUR commands in (1) through (3) below may coordinate with the nearest MAIT for A&I support on maintenance, supply, and readiness problems. Non-USAREUR units will not receive MAIT-programmed visits. Non-USAREUR units may request reimbursable A&I from the supporting MAIT.

- (1) 5th Signal Command.
- (2) 66th Military Intelligence Group (Provisional).
- (3) 7th Special Operations Support Command (Theater Army).

e. Commanders should report systemic problems in maintenance management that cannot be resolved by MAITs to the Commander, USAREUR/7A, ATTN: AEAGD-MD-P, Unit 29351, APO AE 09014, for resolution.

f. The MAIT will not provide A&I services to tables of distribution and allowance (TDA) area support groups (except the 29th Support Group and base support battalion installation materiel maintenance activities (IMMAs)). The Transportation and Troop Support Division, ODCSLOG, may be contacted for A&I support (370-6915).

g. To preserve an atmosphere of trust between the MAIT and supported units, the MAIT will be clearly identified in mission and function statements and regulations. Personnel assigned to a MAIT should not participate in command inspections, annual general inspections, annual training evaluations, spot checks, roadside inspections, command logistics review teams, or any other assistance or evaluation programs.

h. MAITs will ensure that units are aware of--

- (1) The Department of Defense Phoenix Award.
- (2) The Chief of Staff, U.S. Army, Award for Maintenance Excellence.
- (3) The Supply, Maintenance, and Assessment Review Team (SMART) Program.

- (4) Quality deficiency reports (AR 702-7-1).
 - (5) The Logistics Assistance Program (AR 700-4).
 - (6) USAREUR Brake Testing Machine Program.
 - (7) USAREUR Modification Work Order Program, including the Modification Management Information System.
 - (8) The Army Oil Analysis Program.
 - (9) Automotive battery maintenance responsibilities for vehicle operators, vehicle crews, and unit maintenance repairers.
 - (10) Scheduled services including training and certification in preventive maintenance checks and services (PMCS) and associated user level maintenance programs.
- i. Unit commanders may request A&I by contacting their MAITs. Commanders should select areas that require A&I. Higher headquarters may direct a MAIT to visit a specific unit. A directed visit is not an inspection.
 - j. MAITs will send quarterly reports to the ODCSLOG (AEAGD-MD-P) according to the basic AR, paragraph 4-20x(3), and will include a general summary of systemic problems. Reports must arrive at ODCSLOG by 30 April, 31 July, 31 October, and 31 January each year.

R-2. RESPONSIBILITIES

- a. The Office of the Deputy Chief of Staff, Logistics (ODCSLOG), HQ USAREUR/7A (AEAGD-MD-P), will--
 - (1) Oversee the USAREUR Maintenance Assistance and Instruction Team (MAIT) Program in USAREUR.
 - (2) Ensure a representative from the Maintenance Policy and Logistics Review Branch, Maintenance Division, ODCSLOG, visits MAIT sites at least once a year to ensure the standards in AR 750-1 are understood and followed.
- b. Commanders of units in subparagraphs R-1a(1) through (4) and R-1b(1) through (4) will--
 - (1) Establish a MAIT program to support each assigned and attached unit and other units designated by the ODCSLOG.
 - (2) Allocate money and personnel for MAIT operations.
 - (3) Ensure MAIT personnel attend Combined Arms Training Center courses.

R-3. MAIT POCs

The following are MAIT POCs for A&I:

- a. HQ V Corps: Commander, V Corps, ATTN: AETV-MAIT, Unit 29355, APO AE 09014 (DSN 370- 5466/4195, e-mail: g4cfmaitchief@hq.c5.army.mil).
- b. 21st TSC: Commander, 21st Theater Support Command, ATTN: AERLO-L, Unit 23203, APO AE 09263 (DSN 484-7436).
- c. USASETAF (Abn): Commander, United States Army Southern Europe Task Force (Airborne), ATTN: AESE-GL, Unit 31401, Box 1, APO AE 09630 (DSN 634-7881).
- d. 1st Armored Division: Commander, 1st Armored Division, ATTN: AETV-THD-A, Unit 24309, APO AE 09252 (DSN 490-7504).
- e. 1st Infantry Division: Commander, 1st Infantry Division, ATTN: AETV-BGD, Unit 26222, APO AE 09036 (DSN 350-7127).

APPENDIX S

USAREUR CONTRACT MAINTENANCE SUPPORT POLICY

S-1. REFERENCES

- a. Federal Acquisition Regulation.
- b. AR 700-4, Logistics Assistance.
- c. UR 10-5, HQ USAREUR/7A Organization and Responsibilities.
- d. UR 12-16, Mutual Logistic Support Between the U.S. Army and Governments of Eligible Countries, NATO Subsidiary Bodies, and United Nations Organizations.
- e. UR 715-2, USAREUR Acquisition Regulation and USAREUR Acquisition Instructions (UAI).
- f. UR 750-10, USAREUR Base Operations Maintenance Policy.
- g. UP 715-5, Customer Acquisition Guide.
- h. MIL-HDBK-245D, Department of Defense Handbook for Preparation of Statement of Work (SOW).

S-2. APPLICABILITY

The following policy applies to USAREUR and tenant commands (UR 10-5, app A) in the central region (Germany, Belgium, the Netherlands, Luxembourg, and Italy).

S-3. POLICY

- a. Send requests to the Theater Logistics Maintenance Contract Management Office (TLMCMO) for maintenance support of tactical air and ground support equipment exceeding the organic capability or capacity of the requesting unit and above the monetary limit of \$50,000, including all follow-on requirements.
- b. Applies to all tactical equipment authorized by modification tables of organization and equipment (MTOEs), tables of distribution and allowances (TDAs), or modification tables of distribution and allowances (MTDAs), or issued as a temporary loan.
- c. For the purpose of this policy, the term “contract maintenance support” pertains to organizational maintenance, AVUM, DS maintenance, AVIM, and GS maintenance. Chemical agent resistant coating (CARC) painting of vehicles and equipment is a sub-element of care and preservation and considered a maintenance task.
- d. The 21st TSC is designated as the USAREUR central POC, approval authority, and proponent for maintenance contracts in the central region valued at over \$50,000 (including all follow-on requirements) for the equipment and levels of maintenance addressed in a through c above. The 21st TSC may elect one of several options:
 - (1) Assign maintenance tasks to in-house repair facilities.
 - (2) Consolidate contract workload requirements for execution through an established umbrella contract:
 - (a) Umbrella contracts or indefinite delivery/indefinite quantity (ID/IQ) orders for multiple customer units in Germany will be awarded by the USACCE Wiesbaden Regional Contracting Office (WRCO) and RCO Seckenheim. The GSC-E will coordinate their umbrella purchase request and commitment (PR&C) requirements with WRCO and RCO Seckenheim contracting activities to avoid duplication of contract coverage.
 - (b) Umbrella contracts or ID/IQ orders for multiple customer units in Belgium, the Netherlands, Luxembourg, or Italy will be awarded by the appropriate USACCE RCO supporting that particular geographic area.
 - (c) Delivery orders against existing DOD umbrella contracts (for example, Tinker Air Force Base, Dyncorp) that are not executed by USACCE for maintenance support in the central region.

(3) Grant an exception to this policy on an individual basis for the customer unit to submit a specific requirement to the appropriate USACCE RCO, if the time constraints in paragraph S-4c(3) cannot be met.

e. The repair standards for vehicles and equipment will be as cost effective as possible without compromising customer service support. The decision on where to perform repairs or who will accomplish the work must result in the best value for the customer and not be based solely on the lowest cost.

(1) Workloading of USAREUR in-house maintenance facilities will not be at the expense of the customer units (for example, costs will not exceed those for similar services available from reputable contractors) and the same level of service will be provided. There will still be pickup and delivery of equipment and on-site repairs.

(2) To the maximum extent possible, organizational maintenance support and application of maintenance work orders will be accomplished on-site unless the requesting unit approves otherwise.

f. All tactical vehicles and equipment will be repaired to a safe and serviceable standard as set forth in their respective technical manuals.

S-4. RESPONSIBILITIES

a. The Office of the Deputy Chief of Staff, Logistics, HQ USAREUR/7A, will--

(1) Oversee USAREUR contract maintenance support policy and procedures.

(2) Send requests for the establishment or amendment of any of the following documents to the Commander, USAREUR/7A, ATTN: AEAGF-IA, Unit 29351, APO AE 09014 (DSN 370-7918).

(a) Interservice support agreements (ISSAs).

(b) Memorandums of agreement (MOAs).

(c) Memorandums of understanding (MOUs) with other U.S. military organizations (for example, United States Army Materiel Command (USAMC)).

(d) Acquisition and cross-servicing agreements (ACSAs) with host nations to obtain additional military, contractor, and host-nation maintenance support, as required.

(3) Arbitrate and provide final decision on any disputes between customer units and the 21st Theater Support Command (21st TSC) over the source or location of maintenance support.

b. The 21st TSC will--

(1) Operate a TLMCMO with existing resources.

(2) Provide a memorandum of instruction (MOI) to USAREUR commands and units under the operational control and oversight of USAREUR in the central region with procedures and POCs for requesting contract maintenance support.

(3) Send requests through the ODCSLOG to the ODCSRM for the establishment or amendment of ISSAs, MOAs, and MOUs with other U.S. military organizations or ACSAs with host nations to obtain additional military, contractor, and host -nation maintenance support, as required.

(4) Ensure maintenance support provided by in-house maintenance facilities is of the same quality or exceeds the quality of service provided by contracted sources. If acceptable maintenance support services are available at a better value to the customer than can be provided by in-house maintenance facilities, these maintenance support services will be out-sourced.

(5) Send any disputes between customer unit(s) and the General Support Center, Europe, over the source or location of maintenance support to the Commander, USAREUR/7A, ATTN: AEAGD-MD-P, Unit 29351, APO AE 09014 (DSN 370-8600), for arbitration and final decision.

c. The General Support Center-Europe (GSC-E), under the direction of the 21st TSC, will--

(1) Provide an external standing operating procedure to customer units.

(2) Provide central management for all maintenance support contracts established under the guidelines of this policy, the policy of the United States Army Contracting Command, Europe (USACCE), and UR 715-2.

(3) Review, validate, analyze, and process customer unit requests for maintenance support within 5 workdays after receipt during normal operations (within 72 hours after receipt during contingency operations) to determine appropriate action (including verification of whether or not in-house maintenance capability and capacity is available). Take the following actions as appropriate:

(a) Conduct a cost analysis to determine the best source and location of the maintenance support to be provided. The cost analysis will include all expense elements related to the performance of the maintenance support, including transportation to and from the maintenance facility and temporary duty costs for on-site repair.

(b) Provide a copy of the cost analysis to non-21st TSC customer units for review before a decision is made to provide the support with in-house maintenance resources.

(c) Workload organic in-house maintenance facilities to provide the required maintenance support.

(d) Send requests to the appropriate USACCE regional contracting office (RCO) for placement of orders for maintenance support against contracts executed by the USACCE with DOD umbrella contractors, other open-market commercial contractors, or the NATO Maintenance and Supply Agency (NAMSA).

(e) Place orders for maintenance support under existing DOD umbrella contracts (for example, Tinker Air Force Base, Dyncorp) that were not executed by USACCE.

(f) Send requests through the 21st TSC, (Commander, 21st Theater Support Command), ATTN: Support Operations, Unit 23203, APO AE 09263), through the ODCSLOG (AEAGD-MD-P) to the ODCSRM (AEAGF-IA) to establish or amend ISSAs (UR 1-7), MOAs, or MOUs with other U.S. military organizations; or ACSAs with host nations to obtain additional military, contractor, or host-nation maintenance support, as required.

(g) Coordinate a statement of work (SOW) with AMC theater senior command representatives (SCRs) (for example, the United Army Aviation and Missile Command (AMCOM), United States Army Armament and Chemical Acquisition Logistics Activity, United States Army Communications and Electronics Command, and the United States Army Tank-Automotive and Armaments Command), as appropriate. The SCR will review SOW requirements to ensure compliance with applicable safety and sustainment policy, procedures, and guidelines, within 3 workdays after receipt for support of normal operations (within 24 hours of receipt for support of contingency operations).

(h) When it is determined that contract-maintenance action will be pursued, nominate personnel to serve as the contracting officer's representative (COR) and alternate contracting officer's representative (ACOR) to interface with the USACCE RCO, the customer unit POC, and the contractor.

1. The COR will be appointed in writing by the contracting officer. The ACOR will be appointed in writing by the COR.

2. The COR and ACOR will attend all training courses as directed and provided by the USACCE.

3. The duties of the COR and ACOR will be the primary responsibilities of the individual so designated.

4. The GSC-E, the COR, the ACOR, and the customer unit POC will define the customer's complete repair requirements for development of the SOW.

5. The COR or ACOR will address customer concerns to the contractor, resolve contractor quality deficiencies, and interface with the contractor and customer unit on questions regarding equipment turn-in, equipment pickup, and other related technical or administrative issues.

6. All recommended changes to the SOW must be sent to the contracting officer. The COR or ACOR is not authorized to communicate additional requirements or changes to the contract SOW directly to the contractor.

7. The COR or ACOR may train and appoint quality assurance representatives, inspectors, or other personnel to help the COR or ACOR with technical surveillance. These technical surveillance personnel do not have acquisition authority; and cannot take direct action with the contractor. They will only review the contractor's performance and report their findings to the COR or ACOR. The COR or ACOR has authority to take corrective action.

(i) Nominate enough personnel to serve as quality assurance representatives to inspect and ensure the contractor's products and services are in compliance with the performance standards specified in the contract quality assurance plan when contract maintenance support is neither performed on-site nor within close proximity to the customer unit.

(j) Develop and send recommendations for a theater-level, umbrella PR&C through appropriate resource-management channels to the ODCSRM. Consolidated maintenance support for multiple units under an umbrella contract will be awarded by USACCE, as appropriate.

(k) Ensure contracts for commercial direct support (DS), aviation intermediate maintenance (AVIM), and general support (GS) level maintenance include provisions for collecting DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request) maintenance data from the contractor, when cost effective. This data will be included in reports to the Work Order Logistics File (WOLF) at Logistics Support Activity according to the basic AR, paragraph 4-22c.

(l) Ensure that repairs are within the maintenance expenditure limit, as published in technical bulletins or approved waivers for all commodities.

(m) Be responsible for cost and workload accounting.

(n) Send disputes between customer units and the GSC-E over the source or location of maintenance support through the 21st TSC, ATTN: Support Operations, to the Commander, USAREUR/7A, ATTN: AEAGD-MD-P, Unit 29351, APO AE 09014, for arbitration and final decision.

d. USAREUR and tenant commands in the central region will--

(1) Ensure requirements for maintenance support are sent through appropriate command channels (for example, through the supporting S4, materiel management center, G4, directorate of logistics) to the TLMCMO, General Support Center-Europe, ATTN: AERSC-ET, CMR 429, APO AE 09054 (DSN 483-8160, fax 483-7773/8757). Unit requests for maintenance support of contingency operations will be sent electronically.

(2) Send requirements to the GSC-E for maintenance support exceeding the organic capability or capacity and above the monetary procurement limit of \$50,000, including all follow-on requirements for the equipment and levels of maintenance explained in paragraph S-4a through c. Unit submissions for maintenance support must include the following:

(a) National stock number.

(b) Nomenclature (including model number).

(c) Quantity.

(d) Extent of repair or type of service required (for example, preventive maintenance checks and services (PMCS), organizational maintenance or aviation unit maintenance (AVUM), DS maintenance, AVIM, or GS maintenance).

(e) Estimated required delivery date. (Indicate if request is for contingency operations.)

(f) Funded PR&C for non-21st TSC units or a DD Form 448 (Military Interdepartmental Purchase Request (MIPR)) for 21st TSC units, as required.

(g) A statement as to whether or not the customer unit wants to review the GSC-E cost analysis before the unit's requirement is sent to in-house maintenance facilities (applicable only to non-21st TSC units).

(h) Unit POC and telephone number.

(3) Appoint a knowledgeable and technically capable POC or nominate an individual to serve as the quality assurance evaluator for maintenance support contracted by the USACCE. The customer unit POC will interface with the COR or ACOR on issues relating to equipment turn-in, pickup, quality deficiencies, and customer concerns regarding costs, scheduling, and contractor performance. The customer unit POC normally does not have the same acquisition authority as the COR or ACOR and will not be designated as a ACOR by the contracting officer. When a requirement for a customer unit ACOR is identified--

(a) The ACOR will be appointed in writing by the COR.

(b) The ACOR will attend all training courses as directed and provided by USACCE. The ACOR must be technically qualified, trained, and certified to the same level as the COR.

(c) The duties of the ACOR will be the primary responsibilities of the individual so designated.

(d) All recommended changes to the SOW must be submitted through the COR to the contracting officer. The ACOR is not authorized to communicate additional requirements or changes to the contract SOW directly to the contractor. The ACOR is authorized to perform all duties and responsibilities in the absence of the COR.

(4) Nominate an adequate number of personnel to serve as quality assurance representatives. These personnel will inspect and ensure the contractor's products and services are in compliance with the performance standards specified in the contract quality assurance plan as required, when contract maintenance support is either performed on-site or within close proximity of the customer unit.

(5) Provide adequate and suitable maintenance space and contract-defined Government furnished property and services for use by the contractor, when mutually agreed to between the customer units, GSC-E, and contracting officer.

(6) Appeal any disagreement with the GSC-E over the source or location of maintenance support to the Commander, USAREUR/7A, ATTN: AEAGD-MD-P, Unit 29351, APO AE 09014 (DSN 370-8600), for arbitration and final decision.

S-5. EXCEPTION TO POLICY

a. USAREUR and tenant commands operating in the Operation Joint Forge and Operation Joint Guardian areas of responsibility will send requirements for tactical maintenance-support contracts through appropriate logistics channels (for example, S4, materiel management center, G4) to the applicable activities in (1) through (5) below. These activities have a standing board that meets weekly to quickly review and process maintenance and other contract requirements.

(1) In Bosnia and Herzegovina (in the U.S. Sector, Multinational Division North (MND-N)), requirements for maintenance support will be sent to the Joint Acquisition Review Board (JARB), Task Force Eagle Base Camp Coordinating Agency, Tuzla Main, Bosnia and Herzegovina (DSN 762-2707/4608).

(2) In Croatia, Hungary, Bosnia, and Herzegovina (all areas outside the U.S. Sector, MND-N), requirements for maintenance support will be sent to the JARB, National Support Element, Office of the Deputy Chief of Staff, Logistics, Tazsar Support Base, Hungary (DSN 760-2229/2225).

(3) In Kosovo and Macedonia, requirements for maintenance support will be sent to the JARB, Task Force Falcon (TFF), DSN 406-563-3540, or TFF (Rear) (DSN 779-3156/3173), as appropriate.

(4) Maintenance requirements to support the Port of Thessaloniki, Greece will be sent to the JARB, 21st TSC, Support Operations, Kaiserslautern, Germany (DSN 484-7251/7252/7286).

(5) In other areas required to support contingency operations, including units participating in training exercises while deployed to other areas outside the central region, requirements for maintenance support will be sent according to the applicable operation order or exercise directive to the Commander, USAREUR/7A, ATTN: AEAGD-MD-P, Unit 29351, APO AE 09014 (DSN 370-6609/6767).

b. Contract maintenance support requirements for equipment authorized by common tables of allowances, nonappropriated fund equipment, medical equipment, and other items listed on the installation property book will be sent according to MIL-HDBK-245D.

APPENDIX T

ARMY OIL ANALYSIS PROGRAM

T-1. REFERENCES

- a. AR 700-132, Joint Oil Analysis Program (JOAP).
- b. DA Pamphlet 738-750, Functional Users Manual for the Army Maintenance Management System (TAMMS).
- c. DA Pamphlet 738-751, Functional Users Manual for the Army Maintenance Management System-Aviation (TAMMS-A).
- d. Technical Bulletin (TB) 43-0106, Aeronautical Equipment Army Oil Analysis Program (AOAP).
- e. TB 43-0211, AOAP Army Oil Analysis Program Guide for Leaders and Users.
- f. Technical Manual 38-301 (volumes 1 through 4), Joint Oil Analysis Program Laboratory Manual.

T-2. GENERAL

a. DA policy requires units with aeronautical and selected nonaeronautical equipment to participate in the AOAP. It is a mandatory maintenance tool. AOAP requests (DD Form 2026 (Oil Analysis Request (manual form)) and DA Form 5991-E (Oil Analysis Request (automated form)) are important because they are used to prepare and support Army appropriation requirements for the Office of the Secretary of Defense and for Congress.

b. The AOAP for nonaeronautical equipment requires oil and oil filters to be changed based on a laboratory analysis of the oil sample, rather than on calendar days, operating hours, or miles established by the applicable lubrication order (LO).

c. To help unit personnel, most engines and transmissions have factory-installed oil sampling valves (NSN 4820-00-845-1096) to simplify taking oil samples.

d. The AOAP has reduced expenditures for USAREUR oil and oil filters by 90 percent. Unit payback comes in terms of stretching out new oil and oil filters, saving time and work in changing oil and filters, and collecting and disposing of waste oil and filters as hazardous material. Without AOAP, for example, the LO requires the using unit to replace the oil and oil filters of the--

(1) M109A6 Howitzer every 75 days or 750 miles of operation, whichever comes first. The howitzer's engine and transmission have a capacity of 27 and 48 quarts of oil, respectively and several oil filters.

(2) M939-series 5-ton truck engine every 6 months or 6,000 miles, and the transmission every 24 months or 24,000 miles, whichever comes first. The 5-ton engine's crankcase and transmission have a capacity of 23 and 27 quarts of oil, respectively, and several oil filters.

e. The AOAP, or the "on-condition oil and filter change program," is good for the environment. The AOAP reduces--

(1) The need to drill for and purchase new petroleum and the cost of refining petroleum into engine- and transmission-grade oil.

(2) The waste of oil and oil filters and their disposal requirements.

f. The AOAP alerts maintenance personnel when an expensive engine or transmission is worn, about to fail, or needs to be repaired or replaced to avoid untimely and catastrophic failure and costly repairs.

T-3. OIL ANALYSIS LABORATORY LOCATIONS

There are two approved Army Oil Analysis Program (AOAP) laboratories in the USAREUR central region (Germany, Belgium, the Netherlands, Luxembourg, and Italy):

- a. Mannheim Laboratory Center, Bamberg (Activity), (AERSC-MLC-BA) Unit 27535, APO AE 09139 (DSN 469-8427/8424).

b. Mannheim Laboratory Center, Coleman Barracks, (AERSC-MLC) Unit 29702, Box 301, APO AE 09028 (DSN 382-5288/4254).

T-4. POLICY

Two types of oil analyses are performed in USAREUR: one for nonaeronautical equipment and one for aeronautical equipment.

a. Nonaeronautical Equipment.

(1) Nonaeronautical equipment includes selected combat vehicles, tactical wheeled vehicles, materiel-handling equipment, engineer construction equipment, power generator sets, power units, and air compressors. DA Pamphlet 738-750 (tables 4-1 through 4-7) lists all the equipment that must be enrolled in the AOAP. Units will request AOAP services for required nonaeronautical equipment and components from the closest laboratory.

(2) Nonaeronautical equipment oil will be changed based on condition and as directed by the supporting laboratory analysis, rather than on calendar days, operating hours, or miles specified by LOs. There are four exceptions to this policy:

(a) Seasonal oil changes will continue to be made according to applicable LOs.

(b) Oil and oil filter changes on equipment under warranty will be made according to the manufacturer's warranty.

(c) When a unit is deployed and oil analysis service is not readily available, the unit maintenance officer will obtain AOAP support as specified in the applicable operation plan or operation order.

(d) Nonaeronautical equipment that doesn't require enrollment in the AOAP will have oil and oil filter changes according to the applicable LO.

(3) There are two oil-analysis requests in the Army Maintenance Management System: DD Form 2026, which is a manual form, and DA Form 5991-E, which is an automated form.

b. Aeronautical Equipment. Aeronautical equipment includes fixed and rotary-wing aircraft. TB 43-0106, appendix A, lists all aeronautical equipment that must be enrolled in the AOAP. Units will request AOAP services for required aeronautical equipment and components from the Director, USAREUR Mannheim Laboratory Center, Unit 29702, Box 301, APO AE 09028. The Mannheim Laboratory Center (MLC) is the only USAREUR laboratory with the capability of analyzing oil samples from Army aeronautical equipment.

c. Requesting Support. Units, with both nonaeronautical and aeronautical equipment enrolled in AOAP, will request AOAP support from a laboratory specified in paragraph T-3.

(1) Units and activities operating under a manual maintenance management system will use DD Form 2026 to request oil analysis.

(2) Units and activities operating under the Unit-Level Logistics System (ULLS) will use DA Form 5991-E to request oil analysis. DD Form 2026 may be used instead of DA Form 5991-E when the ULLS is inoperable or not available.

d. Delinquency Goal and Standard. Major command, division, brigade, and battalion-level commanders are encouraged to review unit AOAP performance in their review and analysis or similar program. USAREUR AOAP delinquency goal and standard for units with non-aeronautical and aeronautical equipment are as follows:

(1) The delinquency goal is to have no more than 2 percent of the equipment enrolled in the AOAP delinquent.

(2) The delinquency-rate standard is to have no more than 5 percent of the equipment enrolled in the AOAP delinquent.

(3) The enrollment standard requires 100 percent of the equipment to be enrolled in the AOAP.

e. The AOAP Achievement Award Program.

(1) Units that achieve a 2-percent or less delinquency rate each month for the most recent consecutive 12 months are eligible to receive the Deputy Chief of Staff, Logistics (DCSLOG), USAREUR, Certificate of Achievement. To receive the certificate, the unit AOAP coordinator must send a memorandum to the supporting laboratory (para T-3 above) stating that the unit has achieved the USAREUR 2-percent delinquency goal. Unit AOAP coordinators have 6 months from the date the unit achieved the 2-percent delinquency goal to send the memorandum to the supporting laboratory.

(2) The memorandum must include the complete military mailing address of the next higher headquarters, including its office symbol.

(3) The supporting laboratory will review and confirm the unit's achievement. Confirmation of the unit's achievement will be noted in a cover memorandum to the basic memorandum and sent to the Commander, USAREUR/7A, ATTN: AEAGD-MD-PL, Unit 29351, APO AE 09014, within 30 days after receiving the basic memorandum.

(4) The Office of the Deputy Chief of Staff, Logistics (ODCSLOG), HQ USAREUR/7A (ATTN: AEAGD-MD-PL), will provide a signed DCSLOG Certificate of Achievement and cover memorandum within 30 days after receiving the supporting laboratory's confirmation memorandum. Both the certificate and the cover memorandum will be sent directly to the achieving unit with a courtesy copy to the unit's next higher headquarters ((2) above).

(5) The ODCSLOG (AEAGD-MD-PL) will maintain a file copy of each DCSLOG Certificate of Achievement for 2 fiscal years from the date of issue.

T-5. RESPONSIBILITIES

a. Commanders at all levels will--

(1) Implement the AOAP in participating units in their commands.

(2) Ensure their subordinate units appoint an AOAP monitor who has been properly trained and certified by the appropriate supporting laboratory (para T-3).

(3) Ensure every subordinate unit complies with USAREUR delinquency goal and standard (para T-4d) requirements.

(4) Appoint a command AOAP monitor to administer, control, and establish unit AOAP training objectives in their commands.

NOTE: Commanders will monitor using-unit AOAP delinquency-rate goals and standards through the Review and Analysis (R&A) Program or other similar program.

b. Commanders of units owning or operating AOAP-designated equipment will--

(1) Appoint a unit monitor to administer and control the program in the unit.

(2) Ensure that all AOAP-designated equipment and components are enrolled in the program.

(3) Ensure that oil samples are taken properly and accurately and submitted at prescribed intervals.

(4) Ensure maintenance personnel comply with laboratory recommendations and notify the AOAP laboratory using DA Form 3254-R (Oil Analysis Recommendation and Feedback) within 5 days of maintenance accomplishment.

(5) Ensure every AOAP monitor is trained and certified by the supporting laboratory.

(6) Publish procedures to ensure the program is implemented and followed.

c. Unit AOAP monitors will--

(1) Ensure maintenance personnel are properly instructed in the techniques of drawing oil samples from equipment components and in preparing either DD Form 2026 or DA Form 5991-E.

(2) Review copies of DD Form 2026 and DA Form 5991-E for accuracy.

(3) Ensure that laboratory recommendations are promptly followed.

(4) Ensure that enough supply oil-sampling kits and related supplies are available in the unit.

d. Commanders of using units and direct support (DS) and general support (GS) maintenance units and activities will--

(1) Perform authorized maintenance actions recommended by the AOAP laboratory on DA Form 3254-R.

(2) Ensure maintenance actions taken are reported completely and accurately on DA Form 3254-R and sent to the supporting AOAP laboratory.

T-6. TRAINING

a. The MLC will train division, brigade, battalion, and using-unit AOAP monitors. The AOAP monitor must--

(1) Be familiar with general AOAP policy and procedures.

(2) Know how to obtain sampling supplies and equipment.

(3) Know how to properly take oil samples from assigned equipment enrolled in the AOAP.

(4) Be able to train unit equipment operators in AOAP sampling procedures.

b. The MLC offers the following training at the Mannheim laboratory on a nonreimbursable basis:

(1) AOAP training for division- and brigade-level monitors: 1 day (8 hours).

(2) AOAP training for battalion- and unit-level monitors: 2 days (16 hours).

(3) Aeronautical AOAP training: 1/2 day (4 hours).

c. On-site training is available on request at no cost to the unit.

d. Training requirements must be coordinated with the Director, MLC (382-5288/4254).

e. The unit AOAP monitor will provide about 2 hours of AOAP training on aeronautical-equipment oil samplers to personnel designated by the commander as oil samplers. Maintenance assistance and instruction team personnel certified by the MLC may provide training.

(1) The unit AOAP monitor will train and certify unit oil samplers designated by the unit commander on how to properly take oil samples from equipment components and to accurately complete DD Form 2026 or DA Form 5991-E. The commander may designate the equipment operator or unit maintenance personnel as oil samplers.

(2) Training also will emphasize the safety aspects of the AOAP. Persons who take oil samples from equipment must be adequately trained and made aware of the dangers involved. Drawing oil from a hot component can result in spray or spillage of hot oil on the skin, causing serious burns. Taking samples from an operational component exposes the sampler to hot metal surfaces and moving parts, such as V-belts and cooling fan blades. Special care must be taken to prevent clothing from getting caught or coming in direct contact of the body with these moving components. Persons taking oil samples should always wear safety goggles.

(3) After completing the training, the unit AOAP monitor will annotate section III of the individual's DA Form 348 (Equipment Operator's Qualification Record) with "Satisfactorily completed training in the AOAP according to the unit's AOAP training standing operating procedure" and sign the DA Form 348. The unit AOAP monitor will also annotate the "Other Records Section" of the corresponding OF 346 (US Government Motor Vehicle Operator's Identification Card or ULLS-G equivalent) with "AOAP Qualified (date qualified)" and initial it.

(4) The unit maintenance standing operating procedure will provide for the designation and training of oil samplers according to DA Pamphlet 750-35. Commanders may conduct AOAP training during Sergeants Time.

T-7. NONAERONAUTICAL EQUIPMENT PROCEDURES

a. Units will maintain an adequate level of sampling supplies. DA Pamphlet 738-750, table 4-8, lists supplies required for sampling operations.

b. DD Form 2026 or DA Form 5991-E will be prepared for each sample sent. Units will complete the DD Form 2026 or DA Form 5991-E as specified in DA Pamphlet 738-750, chapter 4.

c. Oil samples and the completed DD Form 2026 or DA Form 5991-E will be placed in appropriate shipping or mailing containers. Units will hand-carry or mail samples to the supporting laboratory.

d. Laboratories will--

(1) Conduct oil analysis tests and send results and recommendations to the submitting unit within 5 workdays.

(2) When oil analysis shows normal wear conditions or no contaminants and no corrective action required, indicate on the DD Form 2026 or DA Form 5991-E the date the oil was processed and the statement "Results Normal." The laboratory will return the DD Form 2026 or DA Form 5991-E by mail to the submitting unit for filing. Units will continue to use the oil and oil filters until otherwise notified by the laboratory.

(3) When oil analysis indicates a condition requiring another sample and analysis of the oil, immediately notify the submitting unit AOAP monitor by telephone or fax that another sample is required of the same oil taken under the same condition.

(a) The submitting unit will deliver the new sample within 5 workdays to the laboratory with a new DD Form 2026 or DA Form 5991-E. If the unit cannot provide the new sample within 5 workdays, the maintenance officer or representative will contact the laboratory chief to determine the risk of sustaining more damage if the equipment remains in service.

(b) When the unit requests, the laboratory will confirm the new sample requirement by annotating the DD Form 2026 or DA Form 5991-E with the words "Resample requested," entering the date processed, and returning the form to the submitting unit for filing.

(4) When oil analysis indicates a suspected dangerous or high wear metal concentration or a contaminated condition, the laboratory will immediately notify the submitting unit AOAP monitor and recommend action.

(a) The notification will be by telephone or fax. The laboratory will also make recommendations on DA Form 3254-R (Oil Analysis Recommendation and Feedback). Three copies of the DA Form 3254-R will be sent to the submitting unit with the original sample DD Form 2026 or DA Form 5991-E and four red-and-black, adhesive-backed AOAP labels.

(b) The owning unit will file the DD Form 2026 or DA Form 5991-E behind the DD Form 314 (Preventive Maintenance Schedule and Record) and keep the form until the laboratory returns the results from the next DD Form 2026 or DA Form 5991-E sent by the unit. Only the most recent DD Form 2026 or DA Form 5991-E should be kept on file. The submitting unit or support maintenance personnel will use AOAP labels to identify the defective component as an AOAP item when evacuation or removal is necessary.

(c) On notification, the submitting unit will immediately comply with the laboratory recommendation. When the laboratory recommends removing the equipment from service (do not operate) due to a potentially serious fault, the unit commander will place the equipment in not mission capable maintenance status until the maintenance action is completed. The equipment will be returned to service after the required repairs are completed or technical inspection by the unit maintenance officer or support maintenance personnel verify that continued use will not cause further damage to the component.

(d) When the laboratory recommends a unit maintenance action on DA Form 3254-R, the unit will take the maintenance action to correct the condition. The equipment is not mission capable (NMC) until the maintenance action is completed (AR 750-1, para 4-36d(5)). After unit personnel have performed the laboratory-recommended inspection or maintenance action, they will complete the lower portion of DA Form 3254-R. Block 14 will be used to explain diagnostics performed, discrepancies found, and actions taken to return the component to a serviceable condition. The unit will return the DA Form 3254-R to the laboratory within 5 workdays after maintenance is completed.

(e) When higher-level maintenance is required, the submitting unit will send the equipment to the supporting DS or GS maintenance with two copies of the DA Form 3254-R (Oil Analysis Recommendation and Feedback), the appropriate maintenance request (ULLS DA Form 5990-E or DA Form 2407), and four red-and-black, adhesive-backed AOAP labels. If maintenance personnel do not have AOAP labels, they should contact the supporting laboratory.

e. DS and GS maintenance will be as follows:

(1) DS and GS maintenance units and activities will accept items for repair when recommended by the AOAP laboratory on DA Form 3254-R. The DA Form 3254-R is the authorization for acceptance.

(2) Support maintenance personnel (not laboratory personnel) will determine when a component will be repaired or replaced. When a component is not repairable at DS maintenance and must be evacuated and turned-in to a higher maintenance level, the four red-and-black, adhesive-backed AOAP labels that accompanied the laboratory DA Form 3254-R will be used to mark the component. The labels show that component removal is an AOAP-recommended action requiring feedback to the supporting laboratory, as opposed to an equipment inspector-directed action.

(3) Shop foremen, noncommissioned officers in charge, or quality assurance and quality control inspectors will attach two AOAP labels to the unserviceable component after it is cleaned and drained, and openings are taped closed. Then the other two labels will be prominently attached to the outside of the container. Container labels will be placed on opposite sides of the container.

(4) When DS maintenance personnel send equipment or a component to the GS maintenance facility on a “repair and return” basis, a copy of the DA Form 3254-R and DA Form 2407 will accompany the item.

(5) After GS maintenance personnel complete maintenance actions, they will complete the lower portion of the DA Form 3254-R explaining diagnostics performed, discrepancies found, and actions taken to return the component to a serviceable condition. GS maintenance personnel will also attach copies of the SAMS-1 maintenance request detail report (SAMS-1 PCN AHO-018) and DA Form 2407 to DA Form 3254-R, ensuring that all forms are signed by the GS maintenance officer and sent to the originating laboratory within 5 workdays after maintenance is completed.

T-8. AERONAUTICAL EQUIPMENT PROCEDURES

a. Units will conduct aeronautical equipment AOAP using DD Form 2026, according to the basic regulation, DA Pamphlet 738-751, and TB 43-0106.

b. Units will hand-carry or mail oil samples to the Director, Mannheim Laboratory Center, Unit 29702, Box 301, APO AE 09028.

APPENDIX U

MATERIAL AND TESTING LABORATORY SERVICES

U-1. PURPOSE

This appendix provides guidance for obtaining laboratory services for--

- a. Shelf-life of supplies.
- b. Procurement acceptance (pre-purchase and control) testing.
- c. Cyclic testing of Government supplies and equipment.
- d. Quality control of Government industrial operations.
- e. Testing and analyzing fuels, oils, and related products in connection with mechanical problems of lubricated systems.
- f. Problem-solving and quality testing of textiles, paper products, and packaging material.

U-2. POLICY

Laboratory testing support will be provided to USAREUR appropriated fund elements at no cost; other appropriated fund elements must reimburse the laboratory for testing support.

U-3. RESPONSIBILITIES

- a. The Mannheim Laboratory Center (MLC) is responsible for the laboratory services described in U-1 above.
- b. The United States Army Test, Measurement, and Diagnostic Region, Europe (495-7526), is responsible for inspecting and certifying small arms and ammunition gauges according to Technical Bulletin 43-180.
- c. Requests for laboratory testing of commodities, including but not limited to those listed in e below, will be submitted on DD Form 1222 (Request For and Results of Tests) or by calling 382-5288/5305. The DD Form 1222 will be sent to the Director, Mannheim Laboratory Center, Unit 29702, Box 301, APO AE 09028.
- d. Requests for laboratory testing by non-Army units or for commodities not in e below will be sent to the Commander, 21st Theater Support Command, ATTN: AERLO-MM, Unit 23203, APO AE 09263, for review and approval or disapproval.
- e. The MLC will test the following commodities:
 - (1) Abrasives.
 - (2) Antifreeze.
 - (3) Asbestos content.
 - (4) Asphalted and bituminous products.
 - (5) Batteries and battery acid.
 - (6) Brake fluid.
 - (7) Building materials (for example, concrete, plasters, tiles).
 - (8) Cements, adhesives, and tapes.
 - (9) Disinfectants and decontaminating products.
 - (10) Ferrous and nonferrous metals.
 - (11) Gauges (for test, measure, and diagnostic equipment, see b above).

- (12) Insecticides, pesticides, fungicides, and herbicides.
- (13) Liquid propellants (fuel and oxidizers).
- (14) Organic and inorganic chemicals.
- (15) Paints and lacquers.
- (16) Paper products, fiberboard, and packaging materials.
- (17) Paving materials.
- (18) Pentachlorophenol (PCP) determination.
- (19) Petroleum, oils, lubricants, and greases.
- (20) Polychlorbiphenyl (PCB) determination.
- (21) Preservative compounds.
- (22) Rubber adhesives.
- (23) Rubber materials.
- (24) Soap, detergents, and cleaning compounds.
- (25) Soil analysis, according to U.S. and German requirements.
- (26) Solid fuels.
- (27) Solvents.
- (28) Textiles.
- (29) Transformer oils.
- (30) Vadose and groundwater analysis, according to U.S. and German requirements.
- (31) Water (for example, lead in drinking water).
- (32) Wood and wood products.

U-4. PROCEDURES

a. Testing samples that have not been properly collected, prepared, preserved, or transported waste Government resources and laboratory time. The laboratory will offer advice and assistance about sampling techniques. The following are some recommended sample sizes and shipping containers:

- (1) Send paint in its original factory-sealed container to the laboratory.
- (2) Send solid fuels (1 to 1.5 kilograms) in a polyethylene bag. Enclose the bag in a wide-mouth metal container.
- (3) Pack class 2 and 4 items in their original containers or packages when possible.
- (4) Wrap gauges and similar instruments in proper barrier wrapping and pack in wooden boxes.

b. DD Form 1222 will be accepted only from procurement, quality assurance, and engineering agencies and commanders or designees of authorized U.S. Government agencies. Requests should be as specific as possible on the tests required and the reasons for them. Standard test procedures and specifications should be cited when applicable. Shelf-life samples may be submitted if the material represented is valued at \$100 or more. All samples sent must be identified properly and the degree of urgency indicated on DD Form 1222. DD Form 1222 must be filled out completely with the name and telephone number of the POC. In case of doubt, contact the laboratory for guidance.

U-5. DD Form 1222

DD Form 1222 (Request For and Results of Tests) is available at <http://web1.whs.osd.mil/icdhome/ddeforms.htm>.

APPENDIX V

SAMPLE DATA COLLECTION PROGRAM

V-1. GENERAL

This appendix establishes policy and procedures for sample data collection (SDC) in USAREUR.

V-2. POLICY

a. USAREUR SDC programs will--

- (1) Use the level-2 or -3 methods of data collection.
- (2) Have an in-country contracting officer's technical representative (COTR).
- (3) Not obligate USAREUR units to provide administrative support to data collectors.

b. Individual logistic support (for example, commissary, exchange privileges) for data collectors will be established by the sponsoring command COTR according to UR 600-700 before the plan is implemented.

V-3. RESPONSIBILITIES

a. The Office of the Deputy Chief of Staff, Logistics (ODCSLOG), HQ USAREUR/7A (AEAGA-MD-P), will--

- (1) Administer and direct the USAREUR SDC Program.
- (2) Approve or disapprove SDC requests from sponsoring agencies.

b. SDC sponsoring agencies will--

(1) Send SDC publications (for example, HQDA circulars, SDC plans, field procedures guides, SDC plan extension requests) to the Commander, USAREUR/7A, ATTN: AEAGD-MD-P, Unit 29351, APO AE 09014.

(2) Address SDC requirements in new equipment materiel fielding plans.

c. The Commander, United States Army Materiel Command Forward – Europe, will--

(1) Designate an in-country COTR to perform delegated duties of the sponsoring agency SDC contracting officer's representative (COR).

(2) Process requests for theater clearance for SDC contractor personnel.

(3) Request technical-expert status if required from the DOD Contractor Personnel Office, HQ USAREUR/7A, Hammond Barracks, Unit 29150, APO AE 09100.

(4) Provide the proponent of this appendix and the Commander, 200th Theater Support Command Materiel Management Center (200th TSC MMC) a copy of theater clearances and approved accreditation letters.

d. The Commander, 200th TSC MMC (AERLA-MMC), will--

- (1) Manage the USAREUR SDC program.
- (2) Appoint a USAREUR SDC coordinator in writing to handle SDC actions for USAREUR.
- (3) Provide the coordinator's name, telephone number, and office symbol to the ODCSLOG (AEAGD-MD-P).
- (4) Coordinate proposed and approved SDC plans with USAREUR commands and the in-country COTRs of sponsoring agencies.

(5) Review SDC publications (for example, HQDA circulars, SDC plans, field procedures guides, SDC plan extension requests).

(6) Verify the need for each SDC program 24 months after implementation and each 12-month interval afterwards.

(7) Develop SDC procedures.

(8) Monitor theater SDC programs.

(9) Attend the annual SDC conference and provide briefings when required.

e. Commanders will--

(1) Help select units to participate in SDC.

(2) Appoint a command SDC monitor to administer and control the program in the command.

(3) Review SDC documents relating to equipment used by their units.

(4) Give data collectors access to required data.

(5) Ensure the SDC program is executed according to the field procedures guide and approved USAREUR SDC plan and that SDC does not interfere with the unit mission.

(6) Not enter into a separate agreement with the SDC sponsoring agency to perform SDC in the command.

f. The SDC sponsoring agency contracting officer's representative (COR) or the designated COTR will--

(1) Coordinate SDC requirements with the Commander, 200th TSC MMC (AERLA-MMC); contractor personnel; and the participating unit commander.

(2) Coordinate implementation briefings with units.

V-4. PROCEDURES

a. On receipt of SDC publications--

(1) The ODCSLOG (AEAGD-MD-P) will send them to the Commander, 200th TSC MMC, for analysis.

(2) The Commander, 200th TSC MMC, will review the publications and coordinate them with affected commands.

(3) Commanders of affected commands will review and coordinate the publications with appropriate units.

(a) Results of commander reviews and staffing will be provided to the Commander, 200th TSC MMC.

(b) On receipt of staffing results, the Commander, 200th TSC MMC, will analyze comments and provide recommended changes or recommend approval or disapproval, with supporting justification, to the ODCSLOG (AEAGD-MD-P).

b. On notification of USAREUR approval of an SDC plan or extension, the Commander, 200th TSC MMC, will coordinate execution of the plan.

APPENDIX W

OPERATIONAL READINESS FLOAT

W-1. REFERENCES

- a. AR 700-138, Army Logistics Readiness and Sustainability.
- b. AR 710-2, Supply Policy Below the Wholesale Level.
- c. AR 725-50, Requisitioning, Receipt, and Issue System.
- d. AR 735-5, Policies and Procedures for Property Accountability.
- e. AR 735-11-2, Reporting of Item and Packaging Discrepancies.
- f. DA Pamphlet 710-2-1, Using Unit Supply System Manual Procedures.
- g. DA Pamphlet 710-2-2, Supply Support Activity System Manual Procedures.
- h. DA Pamphlet 738-750, Functional Users Manual for the Army Maintenance Management System (TAMMS).

W-2. GENERAL

The USAREUR operational readiness float (ORF) helps units maintain an acceptable readiness posture. Using ORF, units can meet unprogrammed maintenance requirements when repair of these items cannot be made in a specified time. ORF is a controlled quantity of selected items of equipment authorized for stockage at direct support (DS)-level maintenance.

W-3. APPLICABILITY

This appendix applies to units in USAREUR. The basic regulation, paragraph 4-39o, provides procedures for managing aircraft ORF. The Commander, 200th Theater Support Command Materiel Management Center (200th TSC MMC) (AERLA-MMC-CR&P, DSN 484-7151), is responsible for ORF management.

W-4. POLICY

a. General. USAREUR ORF accounts are accounted for under stock record account (SRA) procedures in AR 710-2 and DA Pamphlet 710-2-2. The SRA officer is the accountable officer.

b. Establishing an ORF Account. DS maintenance units will do the following to request establishment of an ORF account:

(1) Send a request for a derivative unit identification code (UIC) through command channels to Commander, USAREUR/7A, ATTN: AEAGC-FMD, Unit 29351, APO AE 09014, according to Joint Publication 1-03.3.

(2) Request a Department of Defense Activity Address Code (DODAAC) according to AR 725-50.

(3) After the derivative UIC and DODAAC are received, complete a memorandum of justification. The memorandum should include at least the following information:

(a) Unit UIC and DODAAC.

(b) Line item number (LIN), national stock number (NSN), nomenclature, and demand data of equipment requested for authorization into the ORF account.

(c) Quantity of equipment requested for the ORF account.

(d) Quantity of requested equipment supported.

(e) Written justification (including difficulties getting repair parts, geographic area supported, forced issues of ORF items as a result of materiel fielding, and other pertinent reasons).

(4) The memorandum ((3) above) should request that the unit be added to the USAREUR ORF unit list (d below) and, for new equipment, request the equipment be added to the DA-approved authorization list.

c. Changes to, Additions to, and Deletions from ORF Authorization Lists. The ORF authorization list can be changed, added to, or deleted from throughout the year if there is a new requirement or if the account was established the previous January. A memorandum of justification is required when requesting change in ORF authorization (b above). Memorandums of justification should be sent to the USAREUR ORF Manager.

d. ORF Authorization Lists. The 200th TSC MMC publishes a quarterly authorization list, which is the only source to be used in sending and editing ORF requisitions in USAREUR. This list is the formal authorization to requisition and retain ORF stocks. The report lists approved ORF authorizations by UIC for each unit. It also lists LINs, NSNs, and the total authorization for each LIN and NSN with subtotals for each USAREUR command.

e. Continuing Balance System-Expanded (CBS-X) Reporting.

(1) Accountable officers must report changes to the on-hand balance of their ORF equipment to the USAREUR ORF Manager no more than 15 calendar days after the transaction has occurred.

(2) Accountable officers must provide a copy of the following ORF supply transaction records to the USAREUR ORF Manager:

(a) DD Form 1131 (Cash Collection Voucher).

(b) DA Form 362 (Statement of Charges Cash Collection Voucher) for Government property lost, damaged, or destroyed.

(c) DA Form 2765-1 (Request for Issue or Turn-In) for equipment “found on installation.”

(d) DA Form 3161 (Request for Issue or Turn-In) for lateral transfers.

(e) DA Form 4697 (Department of the Army Report of Survey).

(f) DA Form 4949 (Administrative Adjustment Report).

f. Readiness Reporting. Readiness reporting policy for ORF is as follows:

(1) Units with ground or missile ORF will complete and send a monthly DA Form 2406 (Materiel Condition Status Report) or DA Form 3266-1 (Army Missile Materiel Readiness Report), whichever is applicable, for reportable ORF equipment (AR 700-138), to the Commander, 200th TSC MMC, ATTN: AERLA-MMC-CR&P, Unit 23203, APO AE 09263, no later than 3 workdays after the 15th of the month. Units are encouraged to use electronic data transmission (for example, fax, e-mail) to meet the report suspense.

(2) Workdays are defined as days that are not weekends or Federal holidays. USAREUR or unit training holidays are considered workdays for the purposes of the Installation Materiel Condition Status Reporting System (IMCSRS) reporting timeline. The 96-hour reporting requirement for the Unit Status Report remains in effect according to AR 220-1.

(3) The 200th TSC MMC ORF manager will consolidate all ORF forms (DA Form 2406 and DA Form 3266-1) using the IMCSRS. The 200th TSC MMC ORF Manager will send the consolidated theater ORF readiness report using the 200th TSC MMC UIC WH6TAA by e-mail to the Logistics Support Agency (LOGSA), according to the timeline and guidance in AR 700-138.

(4) Units with ORF aircraft will report using their UIC on DA Form 1352 (Army Aircraft Inventory, Status and Flying Time) (AR 700-138) to the Commander, 200th Theater Support Command Materiel Management Center, ATTN: AERLA-MMC-AMTD, Unit 23203, APO AE 09263, no later than 3 workdays after the 15th of the month.

(5) The Chief, Aviation, Missile, and Communications Branch, 200th TSC MMC, will send ORF readiness reports by electronic data transfer to the LOGSA according to the timeline and guidance in AR 700-138.

g. Excess ORF Equipment.

(1) Direct support units (DSU)s that have UICs for which the ORF excess report shows assets above the authorization will request disposition instructions from their materiel management center (MMC). Units also may request disposition instructions for ORF equipment they are authorized but not able to maintain. The respective MMC will request permission to redistribute assets within their commands. These requests will be sent to the USAREUR ORF Manager at 200th Theater Support Command Materiel Management Center ATTN: AERLA-MMC-CR&P, Unit 23203, APO AE 09263. If the request is approved, the MMC will redistribute assets and report remaining ORF assets to the USAREUR ORF Manager for disposition.

(2) Requests for disposition instructions should include the following information and supporting documents according to the maintenance expenditure limit (MEL) technical bulletin (TB).

(a) DODAAC.

(b) DD Form 1384-2 (Transportation Control and Movement Document).

(c) DA Form 461-5 (Vehicle Classification Inspection Form).

(d) DA Form 2404 (Equipment Inspection and Maintenance Worksheet).

(e) DA Form 3590 (Request for Disposition or Waiver).

(3) The USAREUR ORF Manager will accept only serviceable ORF equipment for disposition. Equipment classified as supply condition code H (unserviceable/condemned) or P (unserviceable/reclamation) will be returned through normal supply channels. Combat vehicles with supply code H must be reported to the Commander, 200th TSC MMC, for disposition instructions.

W-5. REQUESTS FOR WAIVER

Requests to waive any provision of the policy in this appendix will be sent to the Commander, 200th TSC MMC, ATTN: AERLA-MMC-CR&P, Unit 23203, APO AE 09263.

W-6. RESPONSIBILITIES

a. The Office of the Deputy Chief of Staff, Logistics (ODCSLOG), HQ USAREUR/7A (AEAGD-MD-P)--

(1) Is responsible for USAREUR ORF policy.

(2) Prepares and sends requests for exception to DA policy to the Deputy Chief of Staff, Logistics, HQDA (DALO-SMM-A).

b. The Commander, 200th TSC MMC (AERLA-MMC-CR&P)--

(1) Has overall authority for distributing and redistributing ORF assets in USAREUR.

(2) Will provide guidance to USAREUR units on ORF management.

c. The USAREUR ORF Manager (Commander, 200th TSC MMC, 484-7151) will--

(1) Be the primary POC and controller of USAREUR ORF.

(2) Be the central collection activity for USAREUR ORF accounts using the CBS-X.

(3) Announce (45 calendar days before) and conduct annual ORF review boards and ORF conferences.

(4) Review and approve ORF authorization levels for USAREUR ORF accounts.

(5) Prepare and distribute annual ORF authorization lists and ORF excess reports.

(6) Provide ORF demand data to the United States Army Materiel Command according to the basic regulation.

(7) Review and approve or disapprove the establishment of ORF accounts in USAREUR.

d. DSU commanders will--

(1) Formally appoint an accountable officer to manage the DSU ORF account.

(2) Supervise the management of the unit's ORF account and the maintenance of the unit's ORF equipment.

e. ORF accountable officers will--

(1) Account for ORF assets according to AR 710-2 and DA Pamphlet 710-2-2, and ensure ORF assets are hand-receipted appropriately.

(2) Maintain DA Form 1296 (Stock Accounting Record) according to DA Pamphlet 710-2-2.

(3) Report and turn in excess ORF equipment.

(4) Send requests for disposition instructions for excess ORF equipment to the Commander, 200th TSC MMC (AERLA-MMC-CR&P).

(5) Document on-hand balance changes and send them to the Commander, 200th TSC MMC (AERLA-MMC-CR &P).

(6) Ensure ORF shortages are requested by memorandum sent through command channels to the Commander, 200th TSC MMC, ATTN: AERLA-MMC-CR&P, Unit 23203, APO AE 09263.

(7) Attend ORF conferences and review boards.

f. The DSU ORF POC (when designated by the ORF hand-receipt holder) will--

(1) Provide, in conjunction with the accountable officer, the following information to the Commander, 200th TSC MMC, ATTN: AERLA-MMC-CR&P, Unit 23203, APO AE 09263, at least 30 calendar days before the ORF review board:

(a) Actual demand data for all authorized ORF items and ORF candidates. This will be reported for the calendar year ending 31 December.

(b) Authorized ORF items where enough resources to maintain the items are not available (disposition instructions will be provided to the accountable officer).

(2) Provide resources for turning in excess ORF equipment as it is identified.

(3) Request and process lateral transfers from the USAREUR ORF Manager and notify the USAREUR ORF Manager when transfers are completed.

(4) Use ORF equipment as prescribed by the basic regulation.

(5) Participate in annual ORF review board conferences.

(6) Direct the maintenance of ORF equipment.

W-7. ORF CANDIDATES AND DEMANDS

a. It is imperative that MMCs retrieve the Master Maintenance Data File (MMDF) from the LOGSA, update authorized ORF and maintenance significant items, and send the updated Equipment Master File (EMF) to subordinate Standard Army Maintenance System-Level 2 (SAMS-2) and Standard Army Maintenance System-Level 1 (SAMS-1) that report directly to the MMC. This will ensure ORF demands are accurately reported on all ORF items. MMCs must update the EMF and send it to subordinate SAMS as changes occur.

b. SAMS-1 correlates each new maintenance request NSN with the EMF and looks for the presence of an ORF indicator (“Y” or “N”) in the ORF DA field. SAMS-1 does this each time a maintenance request is registered in the system and when NSNs on the maintenance requests are modified. If the ORF DA field in the EMF contains a “Y” and the maintenance request priority is 01 or 06, SAMS will enter an “L” (current ORF codes are listed in figure W-1) in the ORF transaction code indicator field when the maintenance request is registered. The “L” means the item is on the DA ORF support list. It has no purpose other than to “capture” a demand.

ORF Code	Definition	Qualifies as Demand
I	Issue from ORF Stock	Yes
R	An Authorized ORF Asset in for repair	Yes
L	A DA Authorized ORF Asset	Yes
Z	An ORF asset repaired and returned to stock.	No

Figure W-1. ORF Codes and Demand Qualifications

c. If the ORF DA field equals “Y” and the ORF AUTH field equals “Y”, then SAMS posts an “R” (repair) in the ORF transaction code indicator field. If a decision is made to not issue a float but to repair the item instead, the “R” in the ORF transaction code indicator field will cause the system to capture a demand for the NSN. If a decision is made to float an ORF asset, the SAMS operator must enter a maintenance request status code “7” (awaiting float transaction) to update the maintenance request record. When maintenance request status code “7” is entered, the system requests that the operator enter the serial number of the serviceable (float) item. After the operator enters the serial number of the serviceable (float) item, SAMS changes the ORF transaction code to an “I” (issue) and creates a new maintenance request, and changes the ORF transaction code on the original maintenance request from an “R” (repair) to a “Z” (no demand). The issue demand (one only) is then captured for this transaction.

d. When a serviceable float is issued against a maintenance request, and the original, unserviceable item, belongs to the ORF account, the utilization code must equal “4” and the ORF transaction code field must equal “Z”. The “Z” code means an ORF asset is being or was repaired and no demand will be captured (the demand has already been accounted for). SAMS will not allow a maintenance request with an ORF transaction code of “Z” to be closed (with maintenance request status code “V”, Closed – Requirement satisfied by ORF exchange).

e. Demands will be transferred with maintenance requests, tasks, and parts data during the weekly maintenance request transfer process to SAMS-2. When the weekly maintenance request transfer (AHN4BD) is processed at the SAMS-2, closed work order request data is written to the AHO04I file. For each record in the AHO04I file whose NSN shows an ORF Indicator of “Y” in the EMF, has a priority 01 to 06, and has a valid ORF Trans Code of “I”, “L”, or “R”, SAMS-2 will capture a demand to the ORF Master File (AHO25I). To properly post ORF FMC and NMC quantities, SAMS operators must first establish a record in the ORF Master File for each ORF item stocked. The record must indicate the quantity authorized by LIN and quantity on-hand by NSN. The sum of the full mission capable (FMC) and not mission capable (NMC) quantities equals the quantity on-hand. When the update ORF demands process is run, the program changes ORF transaction codes (I, L, or R) to a numeric value. The numeric value precludes the record from being counted in subsequent runs of the ORF demands process. The update ORF demands process can be run as often as the maintenance manager deems necessary. Records are updated on the ORF Master File when the update ORF demands process is run. The Monthly Float Usage and Accumulative Report (by support UIC) (PCN AHO-039), the Monthly Float Usage and Accumulative Report (by LIN) (PCN AHO-040), and the ORF Status and Utilization Report (PCN AHO-041) all use the ORF Master File as source data.

f. At the end of the annual reporting period, after all AHN4BD files have been processed, SAMS operators will use the update ORF demands process to produce required reports. SAMS operators must run the purge ORF file process to purge quantities in the cumulative fields of the ORF file (ORF Quantity Demanded, ORF Quantity Issued, and ORF Turn-Around Time). This resets the demand counters to begin accumulating data in the new year. Purged data is written to diskette and the fields in the ORF Master File are reset to zero. This process allows purged data to be restored from a previous period for report purposes (always maintain up-to-date backups of the current years data file to restore when finished). Do not execute the update ORF demands process using purged data.

g. Pieces of equipment undergoing DS maintenance repair qualify as candidates for an ORF transaction when the piece of equipment--

(1) Directly affects readiness posture (maintenance repair must be issue priority designator 01 through 06).

(2) Is job-ordered for DS-level repair.

h. The decision to float equipment will be made by the maintenance officer in the DSU. The SAMS automatically captures ORF demand data.

i. Declassified ORF controlled cryptographic items (CCIs) will be managed the same as other ORF equipment. The only exception is that the communications security logistics support unit must confirm that the item is repairable in the theater before a float transaction can take place. If the item is not repairable in the theater, it will be sent to Lexington Army Depot and replaced.

j. ORF aircraft will be used to assist units in maintaining mission readiness. ORF aircraft will not be used by aviation intermediate maintenance units as mission aircraft. ORF aircraft will be flown a maximum of 4 hours in a month. This includes maintenance test flights. Exceeding the maximum flight time for other than maintenance test flights is prohibited.

W-8. SAMS PROCEDURES FOR ORF

Once the maintenance officer makes the decision to float an item, SAMS-1 handles the exchange of unserviceable assets for serviceable ORF assets. However, SAMS transactions are not a substitute for property book and stock record accounting procedures. Automated information system manuals (this suppl, para 4-13a) provide SAMS procedures.

W-9. GENERAL SUPPORT CENTER, EUROPE (GSC-E)-SUPPORT OF SELECTED V CORPS ORF ASSETS

a. As agreed to by the 21st Theater Support Command (TSC), the GSC-E will maintain selected V Corps ORF that cannot be maintained by V Corps. GSC-E will maintain V Corps ORF for which V Corps is not able to maintain. V Corps ORF managed by GSC-E will not be used to support theater-level maintenance programs without permission from the ODCSLOG (AEAGD-MD, DSN 370-9043). The following procedures for maintaining V Corps ORF assets held at the GSC-E and at V Corps DS maintenance units will be instituted:

(1) The V Corps G4 will provide the 200th TSC MMC ORF Manager and the assistant chief of staff, logistics, (ACSLOG), 21st TSC, a list of ORF assets to be maintained by the GSC-E. The V Corps G4 and the 200th TSC MMC ORF Manager will review the list annually to identify candidates for addition, deletion, or changes in quantity.

(2) What happens to V Corps DS unit ORF in a deployment scenario may vary. In one scenario, ORF may remain at home station where it must be properly maintained. In another it goes with the unit in support of the mission. V Corps units may move ORF assets in and out of GSC-E as required to accommodate either scenario. Deploying units will request the issue of ORF assets for deploying DS units. If turned in, assets will be complete but without components of the end item (COEI) and basic issue items (BIIs). Funding will be according to subparagraphs h and i below. Requests to reposition ORF assets from DS units to the GSC-E will be sent through the V Corps G4 to the 200th TSC MMC ORF Manager.

b. The exchange of ORF assets as a float transaction will not include communications equipment and BII, COEI, or associated support items of equipment (ASIOE). Communications equipment and BII, COEI, and ASIOE will be removed and retained by the using unit before exchanging an ORF asset with the GSC-E.

c. V Corps DS units will request ORF exchange by submitting a manual DA Form 2765 (Request for Issue and Turn-in) to the supporting V Corps MMC. The supporting V Corps MMC ORF coordinator will coordinate with the GSC-E to determine if assets are available and to exchange assets. The supporting V Corps MMC ORF coordinator will request ORF based on the demand criteria in paragraph W-7. The GSC-E will respond to the request within 1 workday with a determination of whether or not an exchange can be made based on the availability of serviceable assets.

d. Once an exchange is approved, V Corps DS units will--

(1) Coordinate with the supporting MMC ORF manager and the GSC-E to exchange assets.

(2) Ensure that all required communications equipment and BII, COEI, and ASIOE are removed from the item prior to turn-in.

(3) Complete a DA Form 2404 documenting the condition of the equipment being turned in, including shortages.

(4) Coordinate with the supporting movement control team (MCT) transportation office for transportation of the item being turned in to the designated GSC-E repair facility. When necessary, organic transportation assets will be used to transport items being turned in. When possible, all shipments should be coordinated to ensure the backhaul of the serviceable item with the same transportation assets.

(5) Initiate action to disenroll the item being turned-in from the Army Oil Analysis Program (AOAP) within 3 workdays (DA Pam 738-750, chap 4).

(6) Send DA Form 2408-9 (DA Pam 738-750, chap 5) within 3 workdays after the date the equipment was transferred.

e. When the exchange is approved and the V Corps DS unit's organic transportation assets are not used, the GSC-E will--

(1) Coordinate transportation with the V Corps DSU and the supporting MCT. When possible, transportation should be coordinated to execute a direct exchange of the ORF asset held by GSC-E, with one round-trip transportation movement.

(2) Initiate action within 3 workdays after the date of transfer to enroll the issued item in the AOAP (DA Pam 738-750, chap 4).

(3) Send DA Form 2408-9 (DA Pam 738-750, chap 5) within 3 workdays after the receipt of the issued item. This submission notifies the LOGSA that the equipment has been transferred.

f. On receipt of the customer asset and turn-in documentation, the GSC-E will--

(1) Validate the condition of the equipment and any shortages recorded on the DA Form 2404. Initiate requisition and repair actions consistent with other GSC-E workload priorities and available man-hours. If the unit DA Form 2404 and the GSC-E validation differ by more than 10 percent in terms of repair costs, the unit turning in the piece of equipment will be notified and a joint inspection will be conducted to reconcile differences.

(2) Notify 21st TSC (AERLO-MR), the V Corps G4, and the 200th TSC MMC ORF Manager of any evidence of abuse or cannibalization.

(3) Enroll the equipment in the AOAP if required (DA Pam 738-750, chap 4).

(4) Send DA Form 2408-9 (DA Pam 738-750, chap 5) within 3 workdays after the date of transfer. This submission notifies the LOGSA that the equipment has been transferred.

g. The GSC-E will report ORF readiness to the 200th TSC MMC ORF manager and the ACSLOG, 21st TSC, each month using a manual DA Form 2406. The ORF readiness report will be sent to the ACSLOG, and the V Corps G4 within 3 workdays after the 15th of each month. The 200th TSC MMC ORF manager will consolidate all ORF readiness reports and send them to LOGSA using the IMCSRS.

h. The initial turn-in of ORF assets, from V Corps DS units to the GSC-E, will be a one-way transaction. The losing unit will prepare DA Form 2404 documenting the condition of each ORF asset. A DD Form 448 (Military Interdepartmental Purchase Request) (MIRP) will accompany the DA Form 2404 to reimburse the GSC-E for any non-DLR repair parts and missing communications equipment and BII, COEI, and ASIOE costs. A transfer of DLRs to the 21st TSC will be executed if required. The actual repair costs and the DD Form 448 (Military Interdepartmental Purchase Request (MIPR)) will be reconciled and funding levels adjusted between the losing unit and the GSC-E. The initial transfer of ORF assets from V Corps DS units to the GSC-E will include all communications equipment, BII, COEI, and ASIOE, and all available repair parts for the item being transferred. The GSC-E will maintain all communications equipment, BII, COEI, and ASIOE provided, but will not exchange those items in subsequent ORF transactions

i. The GSC-E will budget for ongoing maintenance of all ORF assets held by the GSC-E for the V Corps. V Corps will not transfer funds to 21st TSC for sustainment maintenance of ORF. Recording ORF demands and reporting annual ORF demand data will not change. The SAMS at the V Corps DS unit will be used to determine ORF demands.

j. ORF transactions will be managed and executed according to the following standards:

(1) ORF requests received by the GSC-E will be processed in 1 workday. The time starts with the receipt of the request and ends with a response to the requester indicating availability of assets and whether or not an exchange can be executed.

(2) Once initiated, an exchange will be completed as soon as possible. A time standard for exchange cannot be established because of the wide-range of ORF equipment. Small items will be moved through the Theater Distribution Center. Large items will be scheduled for movement through the supporting MCT. Completion is defined as the time when the customer unit has turned in all required documentation, the unserviceable ORF asset has moved to a GSC-E facility, and the serviceable ORF asset has arrived at the V Corps DS maintenance activity that originated the exchange.

(3) The repair time goals for ORF assets will vary according to the priority of the maintenance request for the exchanged item. All repair work will be made on the same priority as the maintenance request of the exchanged item. All repair parts will be requisitioned. Long lead-time repair parts will be expedited through the Defense Logistics Agency and representatives of the United States Army Materiel Command. The following goals are established within the ORF repair process:

(a) Technical inspections should be completed within 15 calendar workdays after receipt. Repair-part requirements will be requisitioned within 5 calendar workdays after the technical inspection is completed.

(b) All open maintenance work requests for ORF items exceeding 30 days will be reviewed through a review and analysis or similar forum.

k. ORF items will be maintained according to the Army maintenance standard (basic AR, para 3-1). Customer units receiving equipment that does not meet the Army maintenance standard will contact the GSC-E Customer Complaint Team to resolve discrepancies. To ensure readiness, the supporting V Corps MMC ORF manager will coordinate all issues of items that do not meet the Army maintenance standard.

l. The GSC-E is responsible for reporting the initial storage of treaty-limited equipment stored at the GSC-E according to the Conventional Forces, Europe, Treaty.

APPENDIX X

USAREUR CHEMICAL AGENT RESISTANT COATING (CARC) PAINTING POLICY

X-1. PURPOSE

This appendix provides the USAREUR CARC painting policy. The DA CARC policy is in the basic AR, paragraph 4-41.

X-2. GENERAL

a. Respiratory Protection Program. Commanders will establish a local respiratory protection program (AR 11-34). The local command safety officer will help the commander develop a respiratory protection program if one does not exist.

b. Respirator Fit-Test. Employees must be medically cleared and trained in the wear of respirators prior to being fit-tested. Because the unit nuclear, biological, and chemical (NBC) noncommissioned officer (NCO) is trained to fit-test the chemical protective mask, he or she will perform respirator fit-testing. The NBC NCO may require only minimum training to fit-test and maintain respirators used in the occupational environment. The industrial hygienist will decide what type of respirator is required, but the industrial hygienist is not responsible for fit-testing.

c. CARC Painting.

(1) CARC painting, repainting, and touchup painting are maintenance tasks. Commanders at all levels are authorized to request and approve contracts for CARC painting of tactical air and ground equipment when both of the following apply:

(a) The requirement exceeds the organic painting capability or capacity of the supporting direct or general support maintenance unit.

(b) Each contract is less than \$50,000.

(2) CARC painting requirements that exceed \$50,000 on a contract must be processed according to appendix S and sent to the Theater Logistics Maintenance Contract Office, ATTN: AERSC-ZA, CMR 429, APO AE 09054.

X-3. CONFINED SPACES

A confined space is a space that is large enough and so configured that an employee can bodily enter and perform work, has a limited means of entry or exit, and is not designed for continuous occupancy. Employees are prohibited from entering confined spaces unless covered under an approved permit-required confined space program, including the required training and equipment, written procedures for permit issuing, entry, and emergency rescue. Safety officers are not trained in the issuing of these permits. For additional information about confined space requirements, contact the supporting industrial hygiene office.

X-4. BRUSH AND ROLLER PAINTING

Painting at the unit level using a brush or roller will be limited to touch-up painting. Touchup painting includes restoration of painted surfaces after repair. Scratches, chips, or marring of the paint surface observed during preventive maintenance checks and services (PMCS) may be repaired at unit level to prevent corrosion.

a. Touch-up painting indoors routinely requires proper ventilation and the use of approved respirators and accessories. Each respirator, cartridge, prefilter, and accessory must be from the same manufacturer to meet Mine Safety and Health Administration/National Institute for Occupational Safety and Health (MSHA/NIOSH) requirements. Table X-1 lists some of the respirators and accessories by manufacturer and national stock number (NSN) available through the normal supply system (AR 710-2). Respiratory protection for touch-up painting indoors is required unless the unit has quantitative sampling data to support otherwise (respirator support is not needed) (United States Army Environmental Hygiene Agency (USAEHA) Technical Guide Number 144 (TG 144).

b. Touch-up painting outdoors is encouraged and does not require respiratory protection when natural ventilation is adequate. Outdoor touchup painting may be performed without respiratory protection after the local industrial hygienist determines that respiratory protection is not required.

Table X-1 Respirators and Accessories (note)	
National Stock Number	Item
3M	
4240-01 -246-5401	Respirator Half Mask Face Piece - Silicone (small/medium)
4240-01-246-5404	Respirator Half Mask Face Piece - Silicone (medium/large)
4240-01-246-5407	Organic Vapor Cartridge
4240-01-235-0823	Cartridge Retainer
4240-01-246-5411	High Efficiency Filter (HEPA)
4240-01-231-7718	High Efficiency Filter Retainer
4240-01-246-5413	Paint Spray Pre-Filter
Wilson	
4240-01-269-4170	Respirator Paint Spray Half-Face w/Dual Cartridges (small)
4240-01-269-4171	Respirator Paint Spray Half-Face w/Dual Cartridges (medium)
4240-01-2694 -172	Respirator Paint Spray Half-Face w/Dual Cartridges (large)
4240-01-268-0567	Paint Spray Cartridges w/Prefilters (20 per box)
4240-01-268-0568	HEPA Filters (10 per box)
Scott	
4240-01-250-0751	Respirator Paint Spray/Organic Vapor Half-Face w/Dual Cartridges (small)
4240-01-250-0748	Respirator Paint Spray/Organic Vapor Half-Face w/Dual Cartridges (medium)
4240-01-250-0749	Respirator Paint Spray/Organic Vapor Half-Face w/Dual/Cartridges (large)
4240-01-250-0774	Replacement Organic Vapor Cartridges (pair)
4240-01-250-0780	Replacement Pre filters (10 pair per package)
4240-01-250-9024	Replacement Retainer Ring (each)
4240-01-250-0773	Cartridge HEPA, Organic Vapor, Dust, Mist, Fume Filter
NOTE: Respirators and accessories in this table may be obtained using DA Form 2765-1 (Request for Issue or Turn-In). The federal logistics record (FED LOG) lists current prices and minimum ordering quantities.	

X-5. SPRAY PAINTING

Spray-painting operations and facilities require evaluation and approval by the supporting industrial hygiene and safety offices and the fire marshal. Spray painting should be performed only in facilities that meet U.S. and host country environmental, safety, and health standards. Use of air-line respirators is the only way to ensure protection when spray painting, unless there is enough ventilation to ensure exposures are below the permissible exposure limit (PEL) (USAEHA TG 144) and workplace monitoring proves that exposures do not exceed the PEL. Table X-2 lists respirator kits by manufacturer.

X-6. AIR QUALITY

a. Specification. The breathing air for air-line respirators must meet the specifications for grade D breathing air as defined in the American National Standards Institute/Compressed Gas Association Specification G-7.1-1989. The required specifications are as follows:

- (1) Oxygen: 19.5 to 23.5 percent.
- (2) Oil (condensed): 5 milligrams per square meter.
- (3) Carbon monoxide: 10 parts per million (p/m) maximum.
- (4) Carbon dioxide: 1,000 p/m maximum.

b. Sampling Responsibility. The supplier of the compressed air, or the owner or operator of the compressor, will ensure the equipment meets performance requirements. The owner or operator may perform air-quality tests after proper instruction on the use of the test equipment.

Table X-2
Respirators Kits

3M	
<u>PES1 Kit, Respirator, General Purpose, Helmet, Air Supplied</u>	<u>NSN: 4240-01-259-4594</u>
This kit consists of:	W-2862 (4240-01-113-4744, Vortex Air Cooling Assembly) (one each) W-5114 (4240-01-163-4136, Breathing Tube) (one each) W-8000 (4240-01-248-7914, Whitecap II General Purpose Helmet) (one each) W-8051 (4240-01-247 -2924, Reusable Shroud Assembly) (one each) W-9435-25 (4240-01-179-7957, Compressed Air Hose - 25 feet) (one each)
<u>PES4 Kit, Respirator (Full Facepiece), Air Supplied</u>	<u>NSN: 4240-01-259-4597</u>
This kit consist of:	W-7800 (4240-01-246-6426, Full Facepiece-Rubber) (one each) W-2963 (4240-01-248-8136, Waist Belt) (one each) W-3061 (4240-01-248-8135, Air Regulating Valve Assembly) (one each) W-3062 (Air Regulating Valve) (one each) W-3064 (Shoulder Strap) (one each) W-3187 (Adaptor Assembly) (one each) W-3188 (Breathing Tube) (one each) W-7890 (Plug) (one each) W-9435-25 (4240-01-179-7957, Compressed Air Hose - 25 feet) (one each)
<u>PES2 Kit Respirator, Abrasive Blasting Helmet, Air Supplied</u>	<u>NSN: 4240-01-259-4595</u>
BULLARD	
This kit consists of:	W-2862 (4240-01 -1t3-4744, Vortex Air Cooling Assembly) (one each) W-5114 (4240-01-163-4136, Breathing Tube) (one each) W-8052 (4240-01-247-2925, Reusable Shroud Assembly) (one each) W-8100 (4240-01-245-0338, Whitecap II Abrasive Blasting Helmet) (one each) W-9435-25 (4240-01-179-7957, Compressed Air Hose - 25 feet) (one each)
<u>77SHI Respirator, Complete With 4644 Medium Weight Black Nylon Cape-28" Length</u>	<u>NSN: 4240-01-252-6611</u>
This kit is shipped complete with:	464 horsepower air entry flow control valve Belt Inner and outer lenses 25 feet of 3/8 inch ID-approved V-10 hose Choice of cape with inner neck cuff
NOTE: The respirator kits in this table maybe obtained using DA Form 2765-1 (Request for Issue or Turn-In). The FED LOG lists prices and minimum ordering quantities	

c. Sampling Frequency for Oil-Free Compressors. Complete laboratory analysis is required--

- (1) Before initial use and two times a year after that.
- (2) After major repairs.
- (3) When the compressor is moved.

d. Sampling Frequency for Oil-Lubricated Compressors.

- (1) Complete laboratory analysis is required--
 - (a) Before initial use and every 90 days after that.
 - (b) After major repairs.

(c) When the compressor is moved.

(2) When only a high-temperature alarm is used, the air from the compressor will be tested for carbon monoxide before each use.

X-7. OIL-FREE AND OIL-LUBRICATED COMPRESSORS

Only oil-free compressors may be used to supply breathable air for respirators. When possible, oil-free compressors should be procured when obtaining more or replacing existing compressors used for supplying breathing air. Oil-free compressors are preferred because of the concern that the oil in oil-lubricated compressors will break down under high temperatures and produce carbon monoxide, which may leak past the pistons and be drawn into the air supply.

a. Safety and Stand-by Devices for Oil-Free Compressors. When an oil-free compressor is used to supply breathing air, it must be equipped with--

(1) Suitable in-line, air-purifying sorbet beds and filters.

(2) An air-storage receiver that is large enough to enable the respirator wearer to escape from a contaminated atmosphere if the compressor fails.

(3) An alarm to indicate compressor failure and overheating.

(4) Air-line couplings that are compatible with outlets for other gas systems or pneumatic tools. This will prevent inadvertent servicing of air-line respirators, other gas systems, or compressed air for pneumatic tools.

b. Safety and Standby Devices for Oil-Lubricated Compressors. When an oil-lubricated compressor is used to supply breathing air, it must be equipped with--

(1) Safety items in a(1) through (4) above.

(2) A high-temperature or carbon monoxide alarm. These alarms must be audible and visible. A high-temperature gauge will not be used in place of an alarm. The carbon monoxide alarm will be--

(a) Located between the purification system and the filling manifold or air-line respirator.

(b) Set 5 p/m.

(c) Calibrated every 90 days.

X-8. AUTHORIZED CARC

a. The following CARC topcoats may be used:

(1) Two-component CARC topcoat MIL-C-46168, types II and IV.

(2) One-component CARC topcoat MIL-C-53039.

b. Both topcoats (a above) are lead- and chromate-free. The one-component topcoat (a(2) above) is preferred because it is easy to apply and waste is minimal.

c. The topcoats in a above will be used with thinner MIL-T-81772, type I.

d. The authorized primer is MIL-P-53022. MIL-P-53022 is a two-component epoxy coating that is corrosion inhibiting and lead- and chromate-free. MIL-P-53022 will be used with thinner MIL-T-81772, type II.

e. Table X-3 describes the different coatings and their NSNs. The information in table X-3 is from the Army Master Data File or FED LOG. More information and NSNs are in USAEHA TG 144 and TM 43-0139.

Table X-3
CARC NSNs in the Army Master Data File (notes)

Type	NSN	Size	Color
<u>MIL-C-46168</u> (This is a two-component topcoat, aliphatic polyurethane coating. Type II is the standard formula; type IV is the high solids volatile organic compound (VOC) compliant formula.)			
Type II (note 1)	8010-01-160-6741	1¼-quart kit	Green 383
	8010-01-162-5578	1¼ -gallon kit	Green 383
	8010-01-160-6742	5-gallon kit	Green 383
	8010-01-160-6744	1¼-quart kit	Brown 383
	8010-01-160-6745	1 ¼-gallon kit	Brown 383
	8010-01-160-6746	5-gallon kit	Brown 383
	8010-01-141-2419	1¼-quart kit	Black
	8010-01-131-6254	1¼-gallon kit	Black
	8010-01-131-6261	5-gallon kit	Black
	8010-01-141-2416	1¼-quart kit	Sand
	8010-01-130-3347	1¼-gallon kit	Sand
	8010-01-131-6259	5-gallon kit	Sand
Type IV (note 2)	8010-01-260-7481	1¼-quart kit	Green 383
	8010-01-260-0911	1¼-gallon kit	Green 383
	8010-01-260-0912	5-gallon kit	Green 383
	8010-01-260-7482	1¼-quart kit	Brown 383
	8010-01-260-0916	1¼-gallon kit	Brown 383
	8010-01-260-0917	5-gallon kit	Brown 383
	8010-01-260-0913	1¼-quart kit	Black
	8010-01-260-0914	1¼-gallon kit	Black
	8010-01-260-0915	5-gallon kit	Black
	8010-01-260-0921	1¼-quart kit	Sand
	8010-01-260-0922	1¼-gallon kit	Sand
	8010-01-260-7483	5-gallon kit	Sand
<u>MIL-C-53039</u> (This is a one-component topcoat, aliphatic polyurethane coating) (note 3)			
	8010-01-229-7546	1-quart can	Green 383
	8010-01-229-9561	1-gallon can	Green 383
	8010-01-229-7547	5-gallon can	Green 383
	8010-01-229-7543	1-quart can	Brown 383
	8010-01-229-7544	1-gallon can	Brown 383
	8010-01-229-7545	5-gallon can	Brown 383
	8010-01-229-7540	1-quart can	Black
	8010-01-229-7541	1-gallon can	Black
	8010-01-229-7542	5-gallon can	Black
	8010-01-234-2934	1-quart can	Sand
	8010-01-234-2935	1-gallon	Sand
	8010-01-234-2936	5-gallon can	Sand
	8010-01-246-0717	1-quart can	Aircraft Green
	8010-01-246-0718	1-gallon can	Aircraft Green
	8010-01-246-0719	5-gallon can	Aircraft Green
	8010-01-246-0717	1-quart can	Aircraft Green
	8010-01-246-0718	1-gallon can	Aircraft Green
	8010-01-24 6-0719	5-gallon can	Aircraft Green
<u>MIL-T-81772</u> (This is an aircraft coating thinner, which is used with CARC topcoats and primers. It comes in type I and type II. The only thinner that may be used with the topcoats is type I. Type II thinner is used with the primer.)			
Type I (note 4)	8010-00-I 81-8080	1-gallon can	

Type II (note 5)	8010-00-181-8079	5-gallon can	
	8010-00-280-1751	55-gallon drum	
	8010-01-200-2637	1-gallon can	
	8010-01-212-1704	5-gallon can	
	8010-01-168-0684	55-gallon drum	
	<p><u>MIL-P-53022</u> (Primer, Epoxy Coating, Corrosion Inhibiting, Lead and Chromate-Free. This is a two-part, flash-drying, corrosion-inhibiting, lead and chromate-free epoxy primer for use on pretreated ferrous and nonferrous metals that must meet air pollution requirements.)</p>		
	8010-01-193-0516	1¼-quart kit	White
	8010-01-193-0517	1¼-gallon kit	White
	8010-01-187-9820	5-gallon kit	White
<p>NOTES: 1. A sample description of MIL-C-46168, type II, in the FED LOG is NSN 8010-01-141-2419 - Black, 37030 Color Chip No; Polyurethane Basic Formulation TY; Pigmented Coloring Method; TY II; Cage 81349, Nondefinitive Spec MIL-C-46168; Cage 80244, Nondefinitive Spec MIL-C-46168 TY II.</p> <p>2. A sample description of MIL-C-46168, type IV, in the FED LOG is NSN 8010-01-260-0915 - Black, Polyurethane Basic Formulation TY; Pigmented Coloring Method; TY IV; Cage 81349, Nondefinitive Spec MIL-C-46168; Cage 80244, Nondefinitive Spec MIL-C-46168, TY IV.</p> <p>3. A sample description of MIL-C-53039 in the FED LOG is NSN 8010-01-234-2934 - Sand; 33303 Color Chip No; Polyurethane Basic Formulation TY; Pigmented Coloring Method; SPCL FEAT Chemical Agent Resistant Coating, Single Component; Cage 81349 Nondefinitive Spec MIL-C-53039.</p> <p>4. A sample description of MIL-T-81772, type I, in the FED LOG is NSN 8010-00-181-8079 - Thinner, Aliphatic Polyurethane Coating; 5 Gal, Unit Qty, Pail, Nondefinitive Spec/Ski Data TY 1; RN Difference as Differentiated by Pkg Data; Cage 81349, Nondefinitive Spec MIL-T-81772, Cage 71191, P/N T1184-66; Cage 80244 Nondefinitive Spec MIL-T-81772, TY 1.</p> <p>5. A sample description of MIL-T-81772, type I, in the FED LOG is NSN 8010-01-200-2637 - Thinner, Epoxy; 1 Gal can; intended for use with MIL-C-22750 and MIL-C-23377; Nondefinitive Spec/Std Data TY II; Departure/Cited Designator Substitute Propylene Glycol Methyl Ether for Ethylene Glycol Methyl Ether, Cage 81349, Nondefinitive Spec MIL-T-81772; Cage 80244, Nondefinitive Spec MIL-T-81772, TY II.</p>			

X-9. SURFACE PREPARATION

- Chemical strippers will not be used because they are a neurotoxin. Surface preparation at the unit level is limited to wire and wet sanding.
- Spray painting, power sanding, and sandblasting will be done only by direct support, general support, and depot maintenance operations that meet applicable health and safety standards.
- Table X-4 lists types of respirators required when performing surface preparation.

Table X-4 Required Respirators for Surface Preparation	
OPERATION	TYPE OF RESPIRATOR
Power sanding	High efficiency particulate air (HEPA) filter respirator
Hand sanding	HEPA filter respirator
Grinding	Air-line respirator with laboratory-certified grade D breathing air
Sand blasting	Air-line respirator with laboratory-certified grade D breathing air

X-10. MSHA/NIOSH APPROVED RESPIRATORS VERSUS DIN-APPROVED RESPIRATORS

- Deutsche Industrienorm (DIN)*(German Industrial Standards)-approved respirators may be used by local national employees only.

b. The United States Army Center for Health Promotion and Preventive Medicine-Europe (CHPPM-EUR) will approve the use of *DIN*-approved respirators.

c. Before buying a *DIN*-approved respirator, the commander will request in writing that an approval be granted for the respirator.

(1) Requests will state--

(a) The make, model, description, and *DIN*-approval number of the respirator.

(b) Hazards that the respirator is designed to protect against.

(c) A POC.

(2) Commanders will send requests to the Commander, CHPPM-EUR, ATTN: MCHB-AE-EI, CMR 402, APO AE 09180.

X-11. MEDICAL CLEARANCE

The industrial hygienist will identify the workareas that require respiratory protection and those employees that are required to wear respirators. The supervisor of these workareas will refer the employee to the supporting occupational health nurse for a medical clearance before respirator use.

X-12. MEDICAL SURVEILLANCE

If the industrial hygienist identifies potential exposures to occupational hazards, employees will be referred to the supporting occupational health nurse for enrollment in a medical surveillance program.

X-13. PAINTING INSTRUCTIONS AND ASSISTANCE

a. Technical Manual 43-0139 provides information and guidance to personnel charged with painting and marking U.S. Army equipment.

b. Contact the local logistics assistance office, United States Army Materiel Command Forward - Europe, for painting and respirator training assistance (DA Pam 738-750, table C-2).

APPENDIX Y

GROUND SUPPORT EQUIPMENT TIRE MAINTENANCE TRAINING

Y-1. PURPOSE

This appendix--

a. Provides policy and procedures to commanders who operate or service tactical ground support vehicles and equipment equipped with pneumatic tires and tubes.

b. Helps the operator, unit, direct support, and general support maintenance personnel care for, maintain, inspect, and repair pneumatic tires and inner tubes for ground support vehicles and equipment.

NOTE: This is not a new tire-training requirement for using-unit and support maintenance personnel. The basic AR, paragraph 4-45d, requires that commanders ensure personnel are trained in deflating, demounting, mounting, inflating, and classifying. Personnel who have documentation showing they have received tire training in USAREUR or elsewhere do not require retraining according to this appendix. Commanders may schedule tire training for personnel who need or request the training.

Y-2. REFERENCES

a. AR 600-55, The Army Driver and Standardization Program.

b. AR 700-4, Logistics Assistance Program.

c. FM 55-30, Army Motor Transport Units and Operations.

d. TM 9-2610-200-14, Care, Maintenance, Repair, and Inspection of Pneumatic Tires and Inner Tubes.

e. UR 350-1, Training in USAREUR.

Y-3. EXPLANATION OF TERMS

direct support (DS) maintenance repairer

A soldier who is responsible for performing DS maintenance on tactical vehicles and equipment. This soldier is normally assigned to a divisional or non-divisional DS maintenance unit and is responsible for performing DS tasks prescribed in the Maintenance Allocation Chart (MAC) of the applicable TM-20 series technical manual. This includes performing tire classification according to this appendix. This term also applies to a DAC and LN mechanic assigned to MTOE DS maintenance facility, whom are responsible for performing DS maintenance on tactical vehicles and equipment.

general support (GS) maintenance repairer

Normally a Department of the Army civilian or local national mechanic assigned to a tables of distribution and allowance (TDA) GS maintenance facility who is responsible for performing up to and including GS maintenance tasks prescribed in the MAC of the applicable TM-20 series technical manual. This includes performing tire classification. The term also applies to a soldier assigned to an modification table of organization and equipment (MTOE) GS maintenance unit responsible for performing up to and including GS maintenance on tactical wheeled vehicles and equipment.

inspection

Physical process of determining compliance with technical manual serviceability requirements.

maintenance

Action taken to keep materiel in a safe and serviceable condition or restore the materiel to that condition. Maintenance of materiel includes cleaning, inspecting, testing, servicing, adjusting, and classification.

operator and assistant operator

A soldier, Department of the Army civilian , or local national employee who has been properly trained, licensed, and authorized according to AR 600-55 to operate specific tactical vehicles and equipment. This includes performing before, during, and after operation preventive maintenance checks and services prescribed in the applicable TM-10 series operator manual, including tire and wheel assembly checks.

service

The demounting and mounting of pneumatic tires on rim wheels and related activities, such as deflating and inflating tires.

unit mechanic

A soldier who is responsible for performing unit level maintenance on tactical vehicles and equipment. This individual is normally assigned to the unit or battalion motor pool responsible for identifying and correcting maintenance faults, performing scheduled services, and unscheduled maintenance according to the applicable TM-20 series technical manual. This term also applies to a Department of the Army civilian and local national employee authorized to maintain tactical vehicles and equipment.

vehicles and equipment

All tactical trucks, tractors, trailers, semitrailers, buses, and off-road equipment equipped with pneumatic tires.

Y-4. GENERAL

a. The basic AR, paragraph 4-45d, requires all commanders to ensure training is provided to all individuals who service single-piece or multipiece rims and wheels used on tactical vehicles and equipment. Individuals who perform these tasks are required to demonstrate proficiency in their ability to perform specific tire, rim, and wheel tasks correctly and safely. This includes repairing flat tires and replacing worn-out tires. These tasks are to be evaluated and a record maintained documenting the evaluation.

b. For the purpose of this appendix, the training requirement in a above applies to any person who is responsible for deflating, demounting, mounting, and inflating pneumatic tires.

Y-5. POLICY

a. Personnel who have documentation showing they have received the tire training required in USAREUR or elsewhere are not required to be retrained according to this appendix. Commanders may schedule refresher tire training for personnel who need or request this training.

b. Tactical wheeled vehicle and equipment operators and assistant operators are responsible for replacing flat or worn tires with the spare tire and wheel assembly, checking and correcting tire pressure, and performing other before, during, and after operation checks according to the item's operator's technical manual (TM) preventive maintenance checks and services table.

c. Using unit, DS, and GS maintenance personnel are responsible for repairing flat tires and tubes, including deflating, demounting, mounting, and inflating tires on a wheel assembly.

NOTE: Commanders may delegate this responsibility to a tactical wheeled vehicle or equipment operator or assistant operator if the operational situation requires. These individuals must first receive the training required in paragraph Y-4.

d. Commanders of using units will--

(1) Establish procedures to ensure tactical vehicle and equipment operators, assistant operators, and unit maintenance personnel care for, maintain, inspect, and repair pneumatic tires and wheels as prescribed in applicable TM.

(2) Establish procedures to inspect tires on vehicles during scheduled maintenance services to ensure tires are safe and serviceable.

(3) Ensure that tactical vehicle operators and assistant operators comply with the additional requirements in paragraph Y-6.

(4) Ensure that training is recorded on the individual's DA Form 348 (Equipment Operators Qualification Record), OF 346 (U.S. Government Motor Vehicle Operator's Identification Card), or Unit Level Logistic System automated OF 346 (AR 600-55 and FM 55-30).

e. Commanders with Organizational Maintenance Number 1 Common Tool Set (line item number W32593) will--

(1) Have at least two unit maintenance personnel trained in servicing tires (deflating, demounting, mounting, and inflating tires on a wheel assembly) according to the applicable equipment TM and TM 9-2610-200-14 .

(2) Coordinate unit maintenance personnel tire training requirements with the local United States Army Tank-Automotive and Armaments Command (TACOM) logistics assistance representative (LAR) as required.

f. Commanders of DS and GS maintenance units and activities will have at least two inspectors trained in the inspection and classification of pneumatic tires according to TM 9-2610-200-14.

Y-6. TIRE TRAINING

a. The U.S. Army TACOM Senior Command Representative (SCR) (AR 700-4) agrees to--

(1) Have a LAR provide on-site unit, DS, and GS maintenance tire inspection, maintenance, and classification training on an individual and nonreimbursable basis when requested.

(2) Tailor tire training to the unit's needs. Training may include the following:

(a) Showing the video "Are Your Tires Safe?"

(b) Showing the video "How to Operate the Bishman 931A Tire Mounter-Demounter" and operating the mounter-demounter, when available in the unit and operational.

(c) A cursory review of the using units' tire-maintenance program by spot checking unit tactical vehicles and equipment to determine if--

1. Tires are inflated to the correct air pressure.

2. Tires wear bar is visible.

3. Tires are the proper size and matched and installed according to tread design and degree of wear.

4. Wheel lug nuts, rims, and side rings are secure and serviceable.

5. Wheel stops are properly adjusted and locked.

6. Tires show signs of abnormal wear.

(3) Provide a statement of training (Fig Y-1 and Fig Y-2) to operator and unit, DS, and GS maintenance personnel who have demonstrated the ability to properly service rims, wheels, tires, and inner tubes in the following areas:

(a) Tire demounting and deflation.

(b) Wheel and rim inspection.

(c) Tire mounting and inflation.

(d) Use of the tire inflation cage and air hose.

(e) Tire inspection and classification.

b. If the name of the local TACOM LAR is unknown, contact the Office of the U. S. Army TACOM SCR (375-3460) for assistance.

STATEMENT OF USING UNIT TIRE TRAINING

DATE

(NAME)

This is to confirm that on the above date, _____ received the maintenance training required by US 1 to AR 750-1, appendix Y, and has successfully demonstrated the ability to maintain and repair pneumatic tires and inner tubes. Training did/did not include the operation of the BISHMAN 931A tire mounter-demounter.

(LAR's PRINTED NAME AND SIGNATURE)

Figure Y-1. Sample Statement of Using-Unit Tire Training

STATEMENT OF DS/GS MAINTENANCE TIRE TRAINING

DATE

(NAME)

This is to confirm that on the above date, _____ received the DS/GS maintenance training required by US 1 to AR 750-1, appendix Y, and has successfully demonstrated the ability to inspect, classify, maintain, and repair pneumatic tires and inner tubes. Training did/did not include the operation of the BISHMAN 931A tire mounter-demounter.

(LAR's PRINTED NAME AND SIGNATURE)

Figure Y-2. Sample Statement of DS/GS Maintenance Tire Training

APPENDIX Z

MAINTENANCE OF TACTICAL VEHICLE CANVAS ITEMS

Z-1. GENERAL

a. Tactical vehicle canvas items are class 9 cargo body tarpaulins, cab covers, driver and passenger seats, tailgate chain covers, Bradley fighting vehicle (BFV) water barrier curtains, and power generator set covers.

b. FM 10-16 provides information on the general repair of vehicle canvas items.

Z-2. POLICY

a. Unit commanders will ensure personnel--

(1) Do not replace canvas items that are discolored or have small paint, grease, or other spots and stains. Minor spots and stains do not make canvas items unserviceable.

(2) Repair canvas items according to the applicable vehicle technical manual (TM) using inexpensive patches and adhesive in the canvas repair kit (line item number R75709).

NOTE: Common Table of Allowances (CTA) 50-909, table 61, authorizes the tentage repair kit as follows: "Per requirement in company/detachment size unit authorized canvas, tarpaulins (to include tarpaulins for trucks) and other canvas items (minimum 1 per unit)."

(3) Repair driver and passenger seats and backrests using inexpensive replacement seat covers available in the normal supply system through the motor pool, rather than putting the seats or backrests on a job order to support maintenance for repair.

NOTE: Seat covers and seat cover kits with lacing are available through the normal supply system for many tactical vehicles, including the commercial utility cargo vehicle, the high mobility multipurpose wheeled vehicle, 2½-and 5-ton series trucks, M915A1 line haul tractor, and heavy expanded mobility tactical truck.

(4) Use the Cannibalization Point in Kaiserslautern as an alternate source for canvas items.

(5) Repair BFV water barrier curtains according to TM 9-2350-284-20-1-2 using the prescribed patches and adhesive.

(6) Seal the seams of leaky plastic-coated cargo covers with adhesive (national stock number (NSN) 8040-00-262-9028 (pint), NSN 8040-00-262-9031 (quart), or NSN 8040-00-281-1972 (gallon)).

(7) Clean canvas items before sending them to support maintenance for repair.

b. Commanders of direct and general support maintenance units authorized military occupational specialty 43M (fabric repairer specialists) and canvas and leather repair tools and equipment will--

(1) Maintain a self-sufficient military capability and capacity to provide cost-effective class 9 canvas inspection, classification, and repair support to customer units. The maintenance expenditure limit (MEL) for canvas items is 65 percent of the cost of the item according to the current federal logistics record (FED LOG).

(2) Not normally repair class 9 canvas items available in the supply system (for example, 2½-ton drivers seat cover) unless the supply source cannot meet the units' required delivery date and the 65 percent MEL is not exceeded.

(3) Provide basic using-unit-level canvas repair training to customer units on the use of the canvas repair kit, as required or on request.

NOTE: If the direct support unit's modification table of organization and equipment does not authorize a sewing machine, CTA 50-909, table 66, authorizes a sewing machine for direct support/general support canvas repair activities.

APPENDIX AA

USAREUR BRAKE-TESTING POLICY FOR TACTICAL VEHICLES

SECTION I

GENERAL

AA-1. PURPOSE

This appendix--

- a. Provides brake-testing policy and procedures for tactical wheeled vehicles in USAREUR. UR 58-1 provides brake testing policy for nontactical vehicles.
- b. Supplements brake-system checks and inspections required by equipment operator manuals and other related publications.

AA-2. APPLICABILITY

Tactical units will use this appendix and brake-test-machine manufacturer operators manuals to test assigned and attached tactical wheeled vehicles and trailers with service brake systems.

AA-3. RESPONSIBILITIES

Commanders will--

- a. Ensure assigned and attached tactical wheeled vehicles and trailers with service brake systems are tested according to the procedures in this appendix.
- b. Budget funds for annual calibration, service, unscheduled maintenance, and operator training. To the maximum extent possible and to minimize operational costs, commanders should include operator training whenever the brake-test machine requires calibration, service, and maintenance.
- c. Send requests for exemptions from the policy in this appendix through command channels to the Commander, USAREUR/7A, ATTN: AEAGD-MD-P, Unit 29351, APO AE 09014.

AA-4. EXCEPTIONS

The brake systems of the following vehicles are exempt from the brake-machine test:

- a. Trailers, 3/4-ton and less, that are not designed to work with prime-mover brakes and have only a parking brake are exempt from the policy in this appendix. The trailers in (1) and (2) below are exempt from the brake-machine testing policy and will be tested using the trailer's technical manual (TM) procedures.
 - (1) Trailer, cargo, 1/4-ton, M416-series.
 - (2) Trailer, 3/4-ton, M101-series.
- b. Trailer, cargo, 1½-ton, M105-series, is exempt from the machine brake-testing policy only when normally towed by M113-, M548-, or M577-series tracked vehicles.
- c. Service and parking brakes of M1070 heavy equipment transporters (HETs) and HET M1000 semi-trailers will be tested according to the vehicle TM.
- d. Forklift and wheeled construction vehicle brake systems will be tested according to the equipment TM.
- e. U.S. Army tactical wheeled vehicles maintained in Greece, Italy, and Turkey are exempt from brake-machine testing. These countries do not use machines to test vehicle brakes.
- f. Units based in or deployed to countries that do not brake-machine test their own vehicles are not required to comply with the brake-machine test provisions of this appendix. Instead, the policy is to service and maintain brakes according to the respective vehicle TM (similar to procedures in the continental United States).

g. Units based in or deployed to a country that does not brake-machine test brakes do not have to brake-machine test their vehicle brakes with one exception: Vehicles that will be transporting hazardous material (HAZMAT) (for example, petroleum products, munitions) must be brake-machine tested before transporting HAZMAT. Requirements for HAZMAT movement are established in UR 55-4 (to be published). DA Form 5988-E (Equipment Maintenance and Inspection Worksheet) will serve as a Hazardous Vehicle Certification Permit (HVCP) when over-stamped according to UR 55-4 (to be published). Additionally, the date of the brake test and the due date of the next brake test (within 1 year) will be annotated on both DA Form 5987-E (Motor Equipment Dispatch) and DA Form 5988-E, which will be issued with each dispatched vehicle (para AA-9 below).

AA-5. TRAINING ASSISTANCE

a. Units needing technical training assistance in motor vehicle brake maintenance and troubleshooting should contact their supporting United States Army Tank-Automotive and Armaments Command (TACOM) logistics assistance representative (LAR) for help. TACOM LARs are not responsible for providing training assistance in brake-machine test procedures.

b. Paragraph AA-13 provides guidance on where and how to obtain brake-machine test training.

SECTION II POLICY

AA-6. TESTING FREQUENCY

a. Vehicle brakes will be inspected visually and brake-machine tested--

(1) Once a year (combine with annual service when practical).

(2) After brake systems are repaired or adjusted.

b. Commanders are encouraged to inspect visually and brake-machine test vehicles--

(1) Before a field exercise or road march.

(2) That are not used regularly.

(3) That have been involved in accidents with alleged brake failures (if the inspection and brake-machine test are feasible and appropriate).

c. Force modernization M-series tactical wheeled vehicles and trailers will be tested within 6 months after receipt by the owning unit. The brake system of European-manufactured tactical vehicles will be tested according to the manufacturer's recommended service interval.

AA-7. TESTS

The machine brake-test will be the final authority for determining the serviceability of vehicle brakes. Brake-machine tests will be conducted according to the brake-machine test manufacturer's operator manual.

a. Organization mechanics will inspect tactical wheeled vehicles and trailers using preventive maintenance checks and services (PMCS) preoperational checks before conducting brake tests. Organization mechanics will correct pretest inspection deficiencies before performing a machine test. The five-stop test may be used under specific conditions (para AA-12) to operationally test the brake system.

b. Maintenance officers in organizations with brake-testing machines will--

(1) Ensure that enough funds are budgeted for operator training and machine repair and calibration.

(2) Ensure that brake-machine operators receive training to operate their brake testers.

(3) Ensure brake testing is performed according to procedures in the brake-test machine operator manual.

(4) Review brake-test results at least once a month and use the results to improve brake maintenance.

c. Where brake-machine testing is not available, support will be coordinated with and provided by the supporting direct support unit (DSU), director of public works (DPW), or directorate of logistics (DOL).

(1) DSUs, DPWs, and DOLs will support tactical units on a reimbursable basis (except for nonreimbursable customers and units that have organic capability).

(2) Owning units should have a vehicle's brakes machine-tested when the vehicle is sent in for direct support maintenance or repairs. This will help avoid a special trip for brake testing.

d. Commercial testing by the *Technischer ÜberwachungsVerein (TÜV)* (vehicle inspection station) or at another German-approved vehicle inspection station is authorized when brake-test machines at U.S. facilities are not available, inoperable, or too small. Commercial testing costs between 60 and 70 DM for one large three-axle truck. Commercial testing must be procured through the supporting regional contracting office. Commanders will plan for necessary contracting lead times.

AA-8. USAREUR-OWNED STOCKS

a. The storage or repairing activity will machine-test brakes on wheeled vehicles from USAREUR stocks.

b. Brake testing will be incorporated in the maintenance cycle of tactical wheeled vehicles in USAREUR stocks.

c. Tactical wheeled vehicle brakes will be machine tested before being issued at storage sites with brake-testing machines.

d. Storage sites without a brake-testing machine may use the five-stop test (para AA-12) in addition to the visual inspection (para AA-10). The owning unit will machine test brakes of tactical vehicles issued from USAREUR stocks within 10 workdays from date of acceptance or delivery.

AA-9. RECORDING BRAKE TESTS

Dispatch documentation under an automated or manual system must show the date of the last successful brake test and the date that the next brake test is due.

a. Unit-Level Logistics System-Ground (ULLS-G) (Automated Procedures).

(1) In ULLS-G, two steps are required to put the date of the last successful brake test on the DA Form 5988-E (table AA-1) and the due date of the next brake test on the DA Form 5987-E (table AA-2).

(a) The instructions in table AA-1 explain how to put the date of the last successful brake test on the DA Form 5988-E.

(b) The instructions in table AA-2 explain how to put the date that the next brake test is due as a special service on the DA Form 5987-E.

(2) A DA Form 5987-E and a current DA Form 5988-E must be issued with each vehicle dispatched. The "Dispatch with DA Form 5988-E" policy must always be followed when equipment is dispatched.

b. The Army Maintenance Management System (TAMMS) Manual Procedures.

(1) The motor sergeant will record successful brake tests on DD Form 314 (Preventive Maintenance Schedule and Record) as prescribed in DA Pamphlet 738-750. The letter "T" (in ink) will be used to indicate successful inspections in the date block. The "T" will be annotated as "Brake Tests" in the remarks section of the DD Form 314. The motor sergeant also will enter "Next Brake Test Due" and a date no later than 12 months after the inspection in the remarks section in pencil.

Table AA-1 Instructions for Posting the Date of the Last Successful Brake Test on DA Form 5988-E	
Step	Instructions
1	From the ULLS-G Main Menu, scroll to menu item I (Operational Processes). Press enter. Scroll to menu item 3 (Maintenance Faults). Press enter for the Maintenance Faults screen. Highlight ADD FAULTS and press enter.
2	At the Select Equip (Add) screen, in the Admin Number field, enter the vehicle-administration number. Press enter for the Maintenance Faults screen.
3	On the Maintenance Faults screen, with the cursor in the Fault Date field, enter the current date. In the Fault Time field, enter the current time (hours and minutes). Press the tab key for the Fault Status Symbol field. Enter a dash (-). In the Fault Description field, enter the date of the last successful brake test as follows: "LAST BRAKE TEST: yyymmdd".
4	In the WHEN DISCovered field, enter A.
5	In the HOW RECOgnized field, enter 099.
6	In the FAILURE field, enter 799.
7	In the MAINT TYPE field, enter S. Press enter. From the Select Equip (Add) screen, press the escape key three times.

Table AA-2 Instructions for Scheduling the Date of the Next Brake Test on DA Form 5987-E	
Step	Instructions
1	From the ULLS-G Main Menu, scroll to menu item J (Equipment Data Update). Press enter. Scroll to menu item 4 (Equipment Service Update). Press enter for the Equipment/Add Update screen.
2	With the cursor in the DODAAC field, press the tab key for the Admin Number field. Enter the administration number of the vehicle being scheduled for the brake test. Press enter and answer the question, "Do you want to update scheduled service for equipment? (Y/N)". The answer must always be "Y" (Yes). Press enter twice and answer the question, "Do you want to update special service for equipment? (Y/N)." The answer must always be "Y" (Yes).
3	On the Equipment Add/Update screen, in the "Other Service Due Data" section (Special Services): if line 2 is empty, go to step 6 below. If line 2 has an entry, delete all special services (lines 1 through 4) by holding down the control key and pressing the home key. Press enter for the Equipment Add/Update screen. NOTE: Before deleting all special services, print a copy of the Special Services screen by pressing the print-screen key. Use the printed copy to repost special services (according to step 5).
4	Repeat step 2. Press enter for the Equipment Add/Update screen.
5	If all special services (lines 1 through 4) were deleted in step 3, use the printed copy of the Special Services screen to reenter them on lines 1, 3, and 4.
6	Enter T1 (T1 = brake test) on line 2. In the Date Due field, enter the date of the next scheduled brake test (normally the date of the next annual service). In the MI/HR/KM Due field, enter the miles, hours, or kilometers of the next annual service. Press enter. NOTE: Failure to enter T1 on line 2 will result in the brake-test-due date being erroneously displayed as the Next Lubrication Due on the DA Form 5987-E. If a different special service is scheduled on line 2, the T1 brake-test service takes precedence.

(2) The results of the last successful brake test, as recorded on the DA Form 2404 (Equipment Inspection and Maintenance Worksheet) or ULLS-G DA Form 5988-E (fig AA-1) and DA Form 5987-E (fig AA-2), will be kept in the vehicle equipment record folder until the next annual brake test is made. Units with brake-test machines that print test results on ticker tapes may attach the tape to the completed DA Form 2404. The paper ticker-tape copy from the machine does not replace the DA Form 2404, DA Form 5988-E, or DA Form 5987-E.

DA FORM 5988-E

A CO 440TH SIG BN

Date: 20000511

MOTOR EQUIPMENT DISPATCH
A CO 440TH SIG BN

DA FORM 5987-E
UIC: WCEJAA

CFK, DARMSTADT GE
APO AE 09175
PHONE NUMBER: (000) 348-6206

DATE DISPATCHED: 20000511

TIME DISPATCHED: 1009

----- EQUIPMENT DATA -----
ADMIN NUM: A6 SERIAL NUM: 022575
EQUIP MODEL: M998 REGISTRATION NUM: NG2GUW
EQUIP NOUN: TRK UTIL CGO 1.25T 4X4 EQUIP LICENSE NUM:
EQUIP NSN: 2320011077155 KEY: H3
NUMBER DATE CHANGE NUMBER
PUBLICATION: TM 9-2320-280-10 06/91
PUBLICATION: TM 9-2320-280-10 --/--

INSPECTORS LIC #: TIME: SIGNATURE: TIME:

----- SERVICE DUE DATA -----
TYPE DATE MI/KM/HR
TYPE PMCS DUE: A 20001005 M 60072
NEXT OIL ANALYSIS DUE: 0
NEXT LUBRICATION DUE: LO 20000517 56082
NEXT SPECIAL SERVICE DUE: T1 20010511 0

----- DISPATCH INFORMATION -----
OFFICIAL USER NAME/PHONE NUM: CPT VERONICA J. WENDT / 348-7373
DESTINATION: HEIDELBERG
EXPECTED DATE/TIME OF RETURN: 20000511 / COB OR 1730

EQUIP DISPATCHER'S SIGNATURE: _____
SPC PARHAM

1ST OPERATOR'S SIGNATURE: _____
MULLER

2D OPERATOR'S SIGNATURE: _____

AUTHORIZATION: _____

DISPATCH OUT REMARKS: _____

----- END ITEM USAGE DATA -----
EQUIPMENT NOUN M/H/K CURRENT READING AT FUEL USAGE
READING RETURN (IN GALLONS)
TRK UTL CGO 1.25T 4X4 M 054082 _____

----- COMPONENT USAGE DATA -----
COMPONENT CURRENT READING AT OIL ADDED
SERIAL NUMBER NOUN M/H/K READING RETURN (IN QUARTS)
NG2GUW-T1 TRANSMISSION H 054082 _____
NG2GUWE1 ENGINE M 054082 _____

Figure AA-2. Sample DA Form 5987-E

c. Reporting Brake Test Failures.

(1) The motor sergeant will report vehicles that have not passed the machine brake test but have passed the five-stop test as READY/AVAILABLE for readiness reporting purposes (AR 700-138). Vehicles that fail the five-stop test are unsafe to operate and will be rated NONMISSION-CAPABLE for readiness reporting purposes.

(2) Vehicles that have not been machine tested, retested, or that have not passed a machine test within 20 workdays after the brake test due date will be considered NOT READY or AVAILABLE for readiness reporting purposes. Commanders may clear vehicles that have passed the five-stop test for limited operation (for example, readiness test, mission) following circled X instructions in the ULLS-G Users Guide or DA Pamphlet 738-750 as appropriate.

SECTION III PROCEDURES

AA-10. VISUAL INSPECTION

The unit motor sergeant or other person designated by the commander will perform the visual inspection as stated in a through f below. The vehicle operator or assistant operator will help the inspector perform the visual inspection. The following items will be checked:

a. Vehicle Cab Compartment.

(1) Check the brake pedal free travel using the applicable manual for acceptable tolerances. If the manual does not specify tolerances, press the brake pedal with normal foot pressure. The pedal should stop no more than halfway to the floor.

(2) Press the brake pedal. The pedal should not stick and must return properly.

(3) Press the brake pedal with normal foot pressure three times and hold it down on the third depression. The pedal height should remain constant. The brake pressure retention check procedure, which is outlined in some vehicle manuals, may be used if applicable.

b. Vehicle Air Compressor or Hydraulic Pump and Belts. Check the vehicle air compressor or hydraulic pump and belts for proper operation, tightness, and cracks using the applicable manual for acceptable tolerances.

c. Vehicle Undercarriage.

(1) Before inspecting the undercarriage, ensure--

(a) The vehicle engine is off and the transmission is in neutral.

(b) The handbrake is set properly and at least the front and rear of one wheel is chocked.

(2) Have the vehicle operator press the brake pedal with normal foot pressure three times and maintain foot pressure on the third depression. Using a creeper, rag, and flashlight or droplight, proceed to the front of the vehicle undercarriage.

(a) Thoroughly check the flexible rubber brake hoses on air and hydraulic brake systems. Check the hoses for wear, chafes, cracks, cuts, crimps, leaks, bulges, or evidence of internal damage (TB 9-2300-405-14). Ensure that proper securing and mounting hardware are present and serviceable.

(b) Thoroughly check the brake system steel tubing (lines), connections, fittings, and bleeder valves for proper mounting and for leaks or restrictions that can hinder the flow of air or fluid. If copper has been used for the hydraulic brakeline, the vehicle will be removed from service until the copper line is replaced with a steel line. Check the lower portion of the wheel backing plate for evidence of air or hydraulic fluid leaks.

d. Vehicle Exterior. Have the vehicle operator press and release the brake pedal and check the stoplights for proper operation.

e. Air Pressure Testing. The compressed air system of American and European manufactured vehicles with full air and air-assisted brake systems will be operationally checked according to the manufacturers manual to ensure--

- (1) The low-air-pressure warning buzzer and light function correctly.
- (2) Air pressure gauges are operational and dry.
- (3) Air pressure builds up to minimum and maximum operating pressures in the prescribed times according to the vehicle TM.
- (4) The brake system is free of brake fluid and air leaks.

f. Tire Pressure. Ensure tires are serviceable, free of foreign material, and inflated to the correct pressure.

AA-11. MACHINE TESTING

a. Brake-Test Machine. A brake-test machine measures the braking force (in newtons) of each wheel or pair of wheels on a vehicle. To convert weight in force (newtons), multiply pounds by 4.54 (for example, 100 pounds x 4.54 = 454 newtons). A trained brake-machine operator will--

- (1) Conduct machine tests according to the machine's operating manual and the provisions of this appendix.
- (2) Run the brake-test machine until the machine locks up or the maximum readings are achieved, whichever occurs first.

b. Test Results. The motor sergeant will use DA Form 2404 to record test results. A sample DA Form 2404 is in figure AA-3 (for trucks) and figure AA-4 (for trailers).

c. Service Brake Requirement. The total braking force of the service brakes for trucks and trailers in relation to the vehicle weight must be as indicated in (1) and (2) below (service brake percentage).

- (1) Vehicles weighing 3.5 tons or less must achieve a service brake percentage of 50 percent or more.
- (2) Vehicles weighing 3.5 tons and more must achieve a service brake percentage of 45 percent or more.
- (3) The service brake percentage is computed by dividing the total vehicle braking force (in newtons) divided by the curb weight of the vehicle (in newtons) multiplied by 100.
- (4) The total measured braking force is the measured braking force on all wheels or pairs of wheels (test total).
- (5) The vehicle weight is shown as the curb weight on the vehicle dataplate or in the specification section of the operator manual. The curb weight is the weight of the vehicle with basic issue items (BIIs) installed and fluids and lubricants filled. Permanently loaded cargo vehicles, including vehicles with shelters, are not required to be unloaded before the brake test. Estimate the weight of the cargo and shelter and combine it with the curb weight of the vehicle. For safety reasons, vehicles carrying ammunition, missiles, and petroleum products will be unloaded for the brake test.

d. Uniform Braking Requirement. The braking force difference between wheels (or pairs of wheels) on the same axle may not be greater than 25 percent of the higher force measurement. Two formulas will be used to determine the braking force difference percentage:

- (1) Divide the lower braking force measurement (in newtons) by the higher braking force measurement (in newtons) and multiply the result by 100 to get the axle braking percentage.
- (2) Subtract the axle braking percentage from 100 to find the braking force difference percentage.

e. Parking Brake Requirement. Test the parking brake according to the vehicle's technical manual.

f. Standards.

(1) Service Brake Test. Service brakes will be tested according to c above. Vehicles that do not attain the total braking force specified in c above fail the test.

(2) Common Axle Test. The difference in force between wheels or a pair of wheels on a common axle may not exceed 25 percent of the greater force when tested according to d above. Vehicles that exceed the 25-percent difference in braking force fail the test.

(3) Parking Brake Test. No brake machine test required. Inspect and test the parking brake according to the vehicle's technical manual.

NOTE: When the standards in (1) through (3) above differ from those prescribed by other NATO countries, the host-country standards will be used.

g. Tractor-Trailer Requirement. Tractors and trailers will be tested separately based on curb weight.

h. Tightening Vehicle Brakes. Unit personnel will not tighten vehicle brakes to pass the machine-brake test. Unit personnel will perform major and minor brake adjustments according to instructions in the vehicle's maintenance manual. The wheels of vehicles with manually adjusted brakes must be raised from the ground to adjust brakes properly.

AA-12. THE FIVE-STOP TEST

a. Personnel may use the five-stop test to test brakes--

(1) When the supporting brake-test machine is temporarily out of order. This one-time authority must be administered before the brake-test due date and is valid for 20 workdays.

(2) That have undergone major repair or adjustment while in the field. This authority expires 20 workdays after the vehicle returns to the home station.

(3) That have failed the machine test or retest. Unit commanders may authorize a mission-capable vehicle that has passed the five-stop test to be driven directly to a repair facility when the vehicle cannot be repaired quickly at the test site.

(4) As an exception to policy for a period not to exceed 6 months with approval of the Office of the Deputy Chief of Staff, Logistics (ODCSLOG), HQ, USAREUR/7A (AEAGD-MD-P, 370-8282). Commanders will send requests for exception to policy through command channels (para AA-3). The exception to policy is to give commanders enough time to acquire and install the proper brake-test machine.

b. The five-stop test may be used instead of the brake-machine test to determine the serviceable condition of tactical vehicle service brakes only under unique situations (a above).

c. Only the unit motor sergeant or other person appointed by the commander will conduct the five-stop test--

(1) In a safe area and in a manner that will not injure personnel or damage property if the brake system fails.

(2) As follows:

(a) Drive the vehicle forward on a hard, level, preferably dry road surface at 25 miles per hour.

(b) Press the brake pedal with maximum effort until the vehicle stops.

(c) Bring the vehicle back to 25 miles per hour and repeat the procedure in (a) and (b) above at least four more times. The vehicle must come to a stop after application of the brake without pulling to either side. This result must happen five times for the vehicle to pass the five-stop test.

d. The unit motor sergeant or other person appointed by the commander will--

(1) Immediately remove from service any vehicle that fails the five-stop test.

(2) Verify brake capability using the five-stop test when the vehicle must be moved to a different facility.

(3) Refer to section V of this appendix for helpful hints to solve brake imbalance problems.

EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET <small>For use of this form, see DA PAM 738-750 and 738-751; the proponent agency is DCSLOG</small>										
1. ORGANIZATION					2. NOMENCLATURE AND MODEL					
3. REGISTRATION/SERIAL/NSN			4a. MILES	b. HOURS	c. ROUNDS FIRED NA	d. HOT STARTS NA	5. DATE		6. TYPE INSPECTION Machine Brake Test	
7. APPLICABLE REFERENCE										
TM NUMBER			TM DATE		TM NUMBER			TM DATE		
COLUMN a – Enter TM item number. COLUMN b – Enter the applicable condition status symbol. COLUMN c – Enter deficiencies and shortcomings.					COLUMN d – Show corrective action for deficiency or shortcoming listed in Column c. COLUMN e – Individual ascertaining completed corrective action initial in this column.					
STATUS SYMBOLS										
"X" – Indicates a deficiency in the equipment that places it in an inoperable status. CIRCLED "X" – Indicates a deficiency, however, the equipment may be operated under specific limitations as directed by higher authority or as prescribed locally, until corrective action can be accomplished. HORIZONTAL DASH "-" – Indicates that a required inspection, component replacement, maintenance operation check, or test flight is due but has not been accomplished, or an overdue MWO has not been accomplished.					DIAGONAL "/" – Indicates a material defect other than a deficiency which must be corrected to increase efficiency or to make the item completely serviceable. LAST NAME INITIAL IN BLACK, BLUE-BLACK INK, OR PENCIL - Indicates that a completely satisfactory condition exists. FOR AIRCRAFT - Status symbols will be recorded in red.					
ALL INSPECTIONS AND EQUIPMENT CONDITIONS RECORDED ON THIS FORM HAVE BEEN DETERMINED IN ACCORDANCE WITH DIAGNOSTIC PROCEDURES AND STANDARDS IN THE TM CITED HEREON.										
8a. SIGNATURE (Person(s) performing inspection)			8b. TIME		9a. SIGNATURE (Maintenance Supervisor)			9b. TIME		10. MANHOURS REQUIRED
TM ITEM NO. <i>a</i>	STATUS <i>b</i>	DEFICIENCIES AND SHORTCOMINGS <i>c</i>			CORRECTIVE ACTION <i>d</i>			INITIAL WHEN CORRECTED <i>e</i>		
		I SERVICE BRAKE RESULTS (Uniform			Braking Requirement for Wheels on Same Axle)					
Front Axle	Left Right:	___ NEWTONS WITHIN 25%			YES, PASSED [] NO, FAILED []					
Rear Axle 1	Left Right:	___ NEWTONS WITHIN 25%			YES, PASSED [] NO, FAILED []					
Rear Axle 2	Left Right:	___ NEWTONS WITHIN 25%			YES, PASSED [] NO, FAILED []					
Rear Axle 3	Left Right:	___ NEWTONS WITHIN 25%			YES, PASSED [] NO, FAILED []					
Total Axles:		___ NEWTONS (Total Braking Force)								
		II SERVICE BRAKE RESULTS (Total			Braking force all axles)					
		a. Compute curb weight of vehicle in Newtons:								
		Vehicles Curb/Empty Weight (Lbs)			___ x 4.54 = ___ (Newtons)					
		b. Compute Ratio of BRAKING FORCE in			Newtons to VEHICLE WEIGHT in Newtons and multiply by 100.					
		BRAKING FORCE ___ divided by VEH			WEIGHT (Newtons) ___ x 100 = ___ %					
		Standard for TRUCKS weighing 3.5 tons			or more is 45 percent or greater.					
		Standard for TRUCKS weighing less than			3.5 tons is 50 percent or greater.					
		d. Results: compare service brake percent-			age (b above) ___ within standard (c above) ___					
		IF EQUAL TO OR EXCEEDS STANDARD			: VEHICLE PASSED []					
		IF LESS THAN STANDARDS:			: VEHICLE FAILED []					

DA FORM 2404, APR 79

Replaces edition of 1 Jan 64, which will be used

USAPPC V1.10

Figure AA-3. Sample DA Form 2404 for Trucks.

EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET <small>For use of this form, see DA PAM 738-750 and 738-751; the proponent agency is DCSLOG</small>										
1. ORGANIZATION					2. NOMENCLATURE AND MODEL					
3. REGISTRATION/SERIAL/NSN			4a. MILES	b. HOURS	c. ROUNDS FIRED NA	d. HOT STARTS NA	5. DATE		6. TYPE INSPECTION Machine Brake Test	
7. APPLICABLE REFERENCE										
TM NUMBER			TM DATE		TM NUMBER			TM DATE		
COLUMN a – Enter TM item number. COLUMN b – Enter the applicable condition status symbol. COLUMN c – Enter deficiencies and shortcomings.					COLUMN d – Show corrective action for deficiency or shortcoming listed in Column c. COLUMN e – Individual ascertaining completed corrective action initial in this column.					
STATUS SYMBOLS										
"X" – Indicates a deficiency in the equipment that places it in an inoperable status. CIRCLED "X" – Indicates a deficiency, however, the equipment may be operated under specific limitations as directed by higher authority or as prescribed locally, until corrective action can be accomplished. HORIZONTAL DASH "-" – Indicates that a required inspection, component replacement, maintenance operation check, or test flight is due but has not been accomplished, or an overdue MWO has not been accomplished.					DIAGONAL "/" – Indicates a material defect other than a deficiency which must be corrected to increase efficiency or to make the item completely serviceable. LAST NAME INITIAL IN BLACK, BLUE-BLACK INK, OR PENCIL - Indicates that a completely satisfactory condition exists. FOR AIRCRAFT - Status symbols will be recorded in red.					
ALL INSPECTIONS AND EQUIPMENT CONDITIONS RECORDED ON THIS FORM HAVE BEEN DETERMINED IN ACCORDANCE WITH DIAGNOSTIC PROCEDURES AND STANDARDS IN THE TM CITED HEREON.										
8a. SIGNATURE (Person(s) performing inspection)			8b. TIME		9a. SIGNATURE (Maintenance Supervisor)			9b. TIME		10. MANHOURS REQUIRED
TM ITEM NO. <i>a</i>	STATUS <i>b</i>	DEFICIENCIES AND SHORTCOMINGS <i>c</i>			CORRECTIVE ACTION <i>d</i>			INITIAL WHEN CORRECTED <i>e</i>		
		I SERVICE BRAKE RESULTS (Uniform			Braking Requirement for Wheels on Same Axle)					
Front Axle	Left Right:	<div style="display: flex; align-items: center;"> <div style="border-bottom: 1px solid black; width: 50px; margin-right: 10px;"></div> NEWTONS WITHIN 25% </div>			YES, PASSED [] NO, FAILED []					
Rear Axle 1	Left Right:	<div style="display: flex; align-items: center;"> <div style="border-bottom: 1px solid black; width: 50px; margin-right: 10px;"></div> NEWTONS WITHIN 25% </div>			YES, PASSED [] NO, FAILED []					
Rear Axle 2	Left Right:	<div style="display: flex; align-items: center;"> <div style="border-bottom: 1px solid black; width: 50px; margin-right: 10px;"></div> NEWTONS WITHIN 25% </div>			YES, PASSED [] NO, FAILED []					
Rear Axle 3	Left Right:	<div style="display: flex; align-items: center;"> <div style="border-bottom: 1px solid black; width: 50px; margin-right: 10px;"></div> NEWTONS WITHIN 25% </div>			YES, PASSED [] NO, FAILED []					
Total Axles:		<div style="display: flex; align-items: center;"> <div style="border-bottom: 1px solid black; width: 50px; margin-right: 10px;"></div> NEWTONS (Total Braking Force) </div>								
		II SERVICE BRAKE RESULTS (Total			Braking force all axles)					
		a. Compute curb weight of vehicle in Newtons:								
		Vehicles Curb/Empty Weight (Lbs)			<div style="display: flex; align-items: center;"> <div style="border-bottom: 1px solid black; width: 100px; margin-right: 10px;"></div> x 4.54 = <div style="border-bottom: 1px solid black; width: 100px; margin-left: 10px;"></div> (Newtons) </div>					
		b. Compute Ratio of BRAKING FORCE in			Newtons to VEHICLE WEIGHT in Newtons and multiply by 100.					
		BRAKING FORCE _____ divided by VEH			WEIGHT (Newtons) _____ x 100 = _____ % Service Brake Percentage					
		c. Standard for TRAILERS is 45 percent or			greater.					
		d. Results: compare service brake percent-			age (b above) _____ within standard (c above) _____					
		IF EQUAL TO OR EXCEEDS STANDARD			: VEHICLE PASSED []					
		IF LESS THAN STANDARDS:			: VEHICLE FAILED []					

DA FORM 2404, APR 79

Replaces edition of 1 Jan 64, which will be used

USAPPC V1.10

Figure AA-4. Sample DA Form 2404 for Trailers.

SECTION IV OPERATORS AND EQUIPMENT

AA-13. OPERATOR SELECTION AND TRAINING

a. The motor officer or sergeant will interview maintenance personnel and carefully screen their records to determine whether or not they have the ability, judgment, and proper attitude to become competent operators before they are trained to operate brake machines.

(1) Only maintenance persons who have been properly trained, tested, and confirmed will be permitted to conduct brake-machine testing.

(2) Only the most capable persons should be selected as needed.

b. The motor officer or sergeant will--

(1) Conduct refresher training periodically or more frequently as required.

(2) Evaluate operators at least once a year to ensure they are conducting the brake-machine test properly.

c. Commanders may have a maintenance warrant officer or noncommissioned officer (NCO) in the rank of staff sergeant or higher receive brake-machine operator training from a manufacturer. Commanders may use the manufacturer trained warrant officer or NCO to train and confirm other maintenance personnel to operate the same model brake test machine. However, these maintenance personnel may not train and confirm other maintenance personnel.

d. The following sources provide brake-machine test training, if the trainers are certified by the brake-machine test manufacturer:

(1) Maintenance assistance and instruction team (MAIT) instructors.

(2) DOL and DPW maintenance supervisors, inspectors, and mechanics.

e. Another training source is by contracting a trainer from a brake-machine-test manufacturer. The Customer Service Office, Base Operations Maintenance Center, Würzburg, Germany (350-7225/6840), will help arrange for reimbursable training.

f. Commanders will confirm trained brake machine operators (b above) using the format in figure AA-5 or by making an entry on DA Form 348 (Equipment Operator's Qualification Record) or OF 346 or the ULLS-G equivalent.

AA-14. AUTHORIZATION, ACQUISITION, AND ACCOUNTABILITY

a. Brake-testing machines are nonstandard items that must be procured locally. Commanders will go through the local contracting office to have specific brake-test machine manufacturers--

(1) Repair and calibrate brake-test machines. Calibration will be requested only when required by the manufacture's operator manual.

(2) Train brake-test machine operators.

b. This appendix and common table of allowances (CTA) 50-909 provide authority for brake-test stands (line item number T54171). CTA 50-909, table 66, authorizes one brake test machine "per maintenance activity required to test braking systems on wheeled vehicles" with approval of the unit's next higher headquarters. Maintenance activities include--

(1) DS and general support tables of distribution and allowances (TDA) and modification table of organization and equipment (MTOE) maintenance activities.

(2) 29th Support Group.

(3) Tactical using units with organic maintenance capability.

(DATE)	CERTIFICATION OF BRAKE-TEST MACHINE OPERATOR
<p>This is to confirm that (NAME) received (NUMBER) hours of training from (INSTRUCTOR) on (DATE) in operation of the (MODEL) brake-test machine and is qualified to test motor vehicle brakes.</p>	
<p>(COMMANDER'S SIGNATURE BLOCK)</p>	

Figure AA-5. Format for Confirming Brake-Test Machine Operator Training

c. Suggested funding sources include the Quick Return on Investment Program (AR 5-4), the Department of the Army Productivity Improvement Program, and the Operation and Maintenance, Army, Program 2 (P2). A brake-test machine costs between \$30,000 and \$60,000, depending on its size.

d. Property accountability of brake-test machines will be according to AR 710-2.

AA-15. OTHER BRAKE-TESTING EQUIPMENT

Only brake-test machines that measures braking retardation at each wheel on the same axle and between wheels on different axles may be used. To use other types of brake machines, commanders must have approval from the ODCSLOG (AEAGD-MD-P).

SECTION V

BRAKE-MACHINE-TEST TIPS

AA-16. GENERAL

This section lists problem areas that could cause vehicles with shoe or disc brakes of air, hydraulic, air-hydraulic, and air-service brake systems to have unacceptable limits of imbalances and fail the brake-machine test.

AA-17. BACKING PLATE

Extreme mechanical friction may be caused by the indentation made in a backing plate at the point of brake shoe contact. This will cause retarding of the brake application on that wheel. This condition usually appears after brake shoes are replaced. The new shoe “hangs up” in the ledge until enough hydraulic or air pressure has developed to move it.

AA-18. BRAKE ADJUSTMENT

Unequally adjusted brakes will cause one brake to contact the drum before the other. Some brakes are designed with self-adjusters, eliminating the need for periodic manual adjustment. Occasionally, one of the self-adjusters fails to compensate for lining wear. This will cause the properly adjusted brake to apply before the wheel with the defective adjuster.

AA-19. BRAKE DRUM

Actual stretching of the brake drum is possible if drums are worn or machined beyond prescribed limits. A rise in temperature increases the radius of the drum and, in many instances, reduces the brake shoe. When these factors exist, the drum friction surface is reduced, which results in an even higher temperature and an increased rate of brake fade.

AA-20. BRAKE LINING

A brake lining worn beyond prescribed limits causes brake imbalance. Overheated brakes destroy the lining by forming a glaze on the lining surface. The glazed surface offers less friction to the brake drum or rotor, which reduces brake efficiency.

AA-21. BRAKE SHOES AND BRAKE LININGS FOR 2½-TON TRUCKS

The entire set of four brake shoes or linings on the axle (for example, of 2½-ton vehicles) must be replaced for safety and brake balance. The four must be either all asbestos or all nonasbestos and should have the same color-code markings. These markings indicate they are of the same composition. Brake shoes must be replaced in sets on a given axle assembly or suspension system to preserve brake balance.

AA-22. BRAKE SHOE RETRACTING SPRING

A weak or broken shoe-retracting spring will allow one shoe to contact the drum before the other. This will result in brake imbalance.

AA-23. BRAKE TESTING VEHICLES WITH COUPLED DOUBLE AXLES ON ROLL TEST BEDS

Limited brake-testing of vehicles with two coupled driving axles is possible. The following points will be considered when brake-testing these vehicles:

a. If a differential is installed between the two coupled-axles that permit different speeds of approximately 2.5 kilometers per hour (the speed of the brake-test stand) at the axles during the brake test (2 to 5 minutes), the brake test may be executed on the roll testbed without problems. The two axles may be tested like single axles in this case.

b. If no differential between the axles exists, both axles are rigidly coupled. In this case, use one of the following procedures should be used:

(1) Lift the wheel of the axle that is not placed on the test stand and pinch the compressed-air line of the wheel-brake cylinder. During the brake test, the lifted wheel must be able to turn with the wheels standing on the brake-test stand (at a double rate of revolutions). Since the wheel-brake cylinder has been pinched off, there will be almost no retroactive effect on the braking forces of the wheels on the brake-test stand.

(2) Install idling rollers in front of and behind the test stand. The wheels of the half of the double axle that is not tested at that moment can move freely on the idling rollers if the compressed air supply to the wheels on the half of the axle not being tested can be blocked. A reasonable test cannot be conducted without blocking the compressed air. Braking forces of the wheels standing on the idling rollers are sent to the wheels of the tested axle and an incorrect result will be shown.

(3) Loosen the drive shaft between the axles or remove the stub shaft on the axle that will not be tested. In general, loosening the drive shaft or removing the stub shaft is not easy and should be done only as an exception.

c. On plate testbeds, the braking forces of the two right and left wheels of the double axle may be measured using the same method used to measure vehicles with rigidly coupled axles.

d. Always follow instructions in the brake-test machine operator manual.

AA-24. HYDRAULIC LINE

A brake imbalance may be caused by a hydraulic-line restriction in a one-wheel brake line. This is usually caused by an internally deteriorated flexible hose between the frame and wheel assembly. Foreign matter in a line could partially block fluid passage. Accidental flattening of a metal-brake line (for example, from a flying stone) also could cause the problem.

AA-25. IMPROPER BRAKE ASSEMBLY

Some vehicle brake systems have primary and secondary brake shoes. A brake imbalance will occur if the shoes are incorrectly positioned.

AA-26. LINING CONTAMINATION

a. Lining contaminated with fluid such as oil, grease, brake fluid, or water will cause a brake imbalance. The behavior of the brakes will vary depending on the type, amount, and age of the fluid. In some instances, the brake force will be momentarily very high. As the lining surface is heated, the contaminant becomes a lubricant, causing the brake force to fall below that of the opposite wheel. If liquid contamination is great (for example, immediately after fording a vehicle in a stream), very low or no brake force will develop in that wheel.

b. A small amount of contamination on a lining will cause an imbalance until the lining is replaced. A small amount of brake fluid on a lining may not be visible. After several applications, brakes may appear normal. When the brakes cool down, the imbalance returns. Often the brake assembly may appear dry.

(1) Closer examination should be made by looking for fluid leakage under the dust boots of the wheel cylinders. Dampness at this point indicates leaking wheel cylinder cups. This seepage turns to gas in the heated brake assembly. As it cools, it permeates the lining and causes the contamination.

(2) Contamination may be evident in the brake dust. Normal dust is dry and powdery, while the dust in contaminated brakes appears dark and heavy.

(3) Disc-brake pads can become contaminated from road splash.

AA-27. SPONGY BRAKE PEDAL

Air in hydraulic lines can cause a spongy brake pedal because of air compressibility. This usually occurs if the mechanic forgets to bleed the system thoroughly after replacing the wheels, brake hoses, lines, and master or air hydraulic cylinders.

AA-28. TIRES

a. Worn tires reduce rolling resistance; low tire pressure increases rolling resistance. This type of resistance is observable on the brake-force gauge.

b. Wet or icy tires may not come up to the speed of the brake motors. If this occurs, do not stop the motors, but let the brake motors continue to rotate the wheels for a few seconds to dry the tires.

AA-29. WHEEL CYLINDERS

Corrosion buildup between the piston and wheel cylinder bore will cause unwanted mechanical friction. Disc-brake pistons also can become sticky or seize, causing improper mechanical application. This corrosion may make the piston sluggish in application or totally inoperative.

APPENDIX AB

M1/M1A1 TANK-RECOVERY AND EVACUATION POLICY

AB-1. PURPOSE

This appendix establishes recovery and evacuation policy for M1/M1A1 tanks in USAREUR.

AB-2. REFERENCES

- a. FM 9-43-2, Recovery and Battlefield Damage Assessment and Repair.
- b. PS Magazine, The Preventive Maintenance Monthly (issues 408, 422, 447, and 553).

AB-3. APPLICABILITY

This policy applies to--

- a. Units equipped with the M1/M1A1 tank.
- b. Maintenance and transportation units that support M1/M1A1 tank units.

AB-4. RESPONSIBILITIES

- a. The Office of the Deputy Chief of Staff, Personnel and Installation Management, HQ USAREUR/7A, will--
 - (1) Monitor towing accidents caused by improper recovery procedures.
 - (2) Implement safety countermeasures as necessary.
- b. The Office of the Deputy Chief of Staff, Logistics, HQ USAREUR/7A (AEAGD-MP-P), will issue policy and perform general staff supervision of recovery and evacuation operations.
- c. Unit commanders will--
 - (1) Emphasize the safe conduct and supervision of M1/M1A1 tank recovery and evacuation operations.
 - (2) Establish, maintain, and conduct sustainment-training programs for recovery and evacuation crews and supervisors.

AB-5. POLICY

- a. Unit commanders will--
 - (1) Ensure that only trained recovery personnel with an additional skill identifier of H8 or personnel who have completed a formal unit-training program engage in M1/M1A1 tank recovery and evacuation operations. The Commander, Seventh Army Training Command, ATTN: AETTV-DOT-MTD, Unit 28038, APO AE 09112 (DSN 476-2618), will provide an exportable recovery and evacuation training package.
 - (2) The formal training will be recorded on the individual's DA Form 348 (Equipment Operator's Qualification Record), OF 346 (U.S. Government Motor Vehicle Operator's Identification Card), or Unit Level Logistics System – Ground automated OF 346 (AR 600-55 and FM 55-30).
 - (3) Develop a recovery training-sustainment program that stresses training to technical and field standards.
 - (4) Ensure the unit maintenance standing operating procedure explains M1/M1A1 tank recovery and evacuation operations.
 - (5) Ensure unit personnel follow the procedures in b below.
- b. Unit personnel will--

(1) Repair M1/M1A1 tanks at the breakdown site when possible.

(2) Go to the nearest roadway location or maintenance collection point (MCP) where repairs can be made when on-site repair is not possible within about 2 hours.

(3) Use heavy equipment transporters as much as possible to move M1/M1A1 tanks from the road or brigade-support area MCP.

(4) Conduct recovery and evacuation operations according to technical and field manual procedures and published safety policy. The following four areas require command emphasis:

(a) When towing an M1/M1A1 tank, use an M88A1 or another M1/M1A1 tank as a holdback vehicle, even when using a tow bar.

NOTE: Never allow personnel to ride on or in a towed vehicle.

(b) When using a tow bar, do not exceed 5 miles per hour. When using tow cables (both tow cables must be used), do not exceed 2 miles per hour.

(c) Use only a tow bar with an improved clevis installed (national stock number (NSN) 5340-01-267-2908). The complete tow bar with the improved clevis is NSN 2540-01-267-2912. An improved clevis may be used for towing cross-country and has a rated capacity of 70 tons.

(d) When using M1/M1A1 tanks for similar vehicle recovery, do not allow the rear of either the towing or the holdback tank to face the rear of the disabled tank. Exhaust heat damage to the disabled tank could result.

c. FM 9-43-2 and PS Magazine provide towing guidelines. Back issues of PS Magazine may be ordered by the unit publications clerk from the United States Army Publishing Agency or through the PS Magazine website:
<http://www.logsa.army.mil/psmag/pshome.html>.